

EXHIBIT 9

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

ENTROPIC COMMUNICATIONS, LLC,)

Plaintiff,)

vs.) Civil Action No.

) 2:22-cv-00125-JRG

CHARTER COMMUNICATIONS, INC.,)

Defendants.)

VIDEOTAPED REMOTE DEPOSITION OF

KEVIN ALMEROTH, PH.D.

Deponent testifying from Santa Barbara, California

Friday, April 28, 2023

Volume I

Stenographically Reported By:

Melissa M. Villagran, RPR

CSR No. 12543

Job No. 5890301

PAGES 1 - 162

<p style="text-align: right;">Page 2</p> <p>1 IN THE UNITED STATES DISTRICT COURT 2 FOR THE EASTERN DISTRICT OF TEXAS 3 MARSHALL DIVISION 4 _____ 5) 6 ENTROPIC COMMUNICATIONS, LLC,)) 7 Plaintiff,) 8 vs.)Civil Action No. 9)2:22-cv-00125-JRG 10 CHARTER COMMUNICATIONS, INC.,) 11) 12 Defendants.) 13 _____) 14 15 16 Videotaped remote deposition of KEVIN 17 ALMEROTH, PH.D., Volume I, taken on behalf of 18 Plaintiff with all participants appearing remotely 19 via videoconference and the Deponent testifying from 20 Santa Barbara, California, beginning at 9:03 a.m. 21 and ending at 2:31 p.m. on Friday, April 28, 2023, 22 before Melissa M. Villagran, RPR, Certified 23 Shorthand Reporter No. 12543. 24 25</p>	<p style="text-align: right;">Page 4</p> <p>1 APPEARANCES (Continued): 2 ALL ATTENDEES APPEARING REMOTELY 3 4 Videographer: 5 Dustin Brown 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p>
<p style="text-align: right;">Page 3</p> <p>1 APPEARANCES: 2 ALL ATTENDEES APPEARING REMOTELY 3 4 For Plaintiff: 5 K&L GATES 6 BY: KATHERINE L. ALLOR 7 JASON ENGEL 8 Attorneys at Law 9 70 West Madison Street, Suite 3300 10 Chicago, Illinois 60602 11 312.372.1121 12 Katy.allor@klgates.com 13 Jason.engel@klgates.com 14 15 For Defendants: 16 ARNOLD & PORTER 17 BY: DAVID BENYACAR 18 Attorney at Law 19 250 West 55th Street 20 New York, New York 10019 21 212.836.8689 22 david.benyacar@arnoldporter.com 23 24 25</p>	<p style="text-align: right;">Page 5</p> <p>1 INDEX 2 3 DEPONENT EXAMINATION 4 KEVIN ALMEROTH, PH.D. 5 Volume I 6 BY MS. ALLOR 8 7 8 9 EXHIBITS 10 DEPOSITION PAGE 11 Exhibit 1 Deposition Notice 15 12 13 Exhibit 2 Declaration 15 14 15 Exhibit 3 '775 patent 23 16 17 Exhibit 4 Excerpts from a Microsoft 65 18 Computer Dictionary, 3rd Edition 19 20 Exhibit 5 Webster's New World Computer 94 21 Dictionary 10th Edition 22 23 Exhibit 6 '690 Patent 119 24 25</p>

<p style="text-align: right;">Page 6</p> <p>1 INDEX (CONTINUED)</p> <p>2</p> <p>3 EXHIBITS</p> <p>4 DEPOSITION PAGE</p> <p>5 Exhibit 7 '682 patent 136</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10 INFORMATION REQUESTED</p> <p>11 (None.)</p> <p>12</p> <p>13</p> <p>14 INSTRUCTION NOT TO ANSWER</p> <p>15 (None.)</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p style="text-align: right;">Page 8</p> <p>1 KEVIN ALMEROTH, PH.D.,</p> <p>2 having been administered an oath, was examined and</p> <p>3 testified as follows:</p> <p>4</p> <p>5 EXAMINATION</p> <p>6 BY MS. ALLOR:</p> <p>7 Q Okay.</p> <p>8 Good morning, Dr. Almeroth.</p> <p>9 A Good morning.</p> <p>10 Q Have you been deposed before? 09:04:23</p> <p>11 A Yes, ma'am.</p> <p>12 Q How many times?</p> <p>13 A North of 100.</p> <p>14 Q So you would say you are pretty good at</p> <p>15 giving depositions? 09:04:38</p> <p>16 A I've had a lot of practice. I don't know</p> <p>17 that I'd say I'm necessarily very good.</p> <p>18 Q Okay.</p> <p>19 Well, I'm just going to go over some quick</p> <p>20 ground rules with you just today so we're all on the 09:04:49</p> <p>21 same page. Since we're on Zoom and sometimes it can</p> <p>22 be a little -- you know, the signal can go in and</p> <p>23 out, if you can't hear me or can't understand a</p> <p>24 question, would you ask me so I can repeat it, and</p> <p>25 same thing if the court reporter can't hear us, 09:05:03</p>
<p style="text-align: right;">Page 7</p> <p>1 Santa Barbara, California; Friday, April 28, 2023</p> <p>2 9:03 a.m.</p> <p>3</p> <p>4 THE VIDEOGRAPHER: Good morning. We are on</p> <p>5 record at 9:03 a.m., April 28, 2023. This is the 09:03:06</p> <p>6 video-recorded deposition of Dr. Kevin Almeroth. My</p> <p>7 name is Dustin Brown here with our court reporter</p> <p>8 Melissa Villagran.</p> <p>9 This deposition is being held remotely. The</p> <p>10 caption of this case is Entropic Communications, LLC 09:03:24</p> <p>11 versus Charter Communications, Incorporated.</p> <p>12 Please note that audio and video recording</p> <p>13 will take place unless all parties agree to go off</p> <p>14 the record. If there are any objections to the</p> <p>15 proceeding, please state them at the time of your 09:03:40</p> <p>16 appearance beginning with the noticing attorney.</p> <p>17 Appearances, please.</p> <p>18 MS. ALLOR: Katie Allor from K&L Gates on</p> <p>19 behalf of the plaintiff, Entropic Communications,</p> <p>20 LLC, and with me today are my colleagues, Jason 09:03:51</p> <p>21 Engel and Connor Meggs.</p> <p>22 MR. BENYACAR: David Benyacar with the firm</p> <p>23 of Arnold & Porter representing Charter</p> <p>24 Communications.</p> <p>25</p>	<p style="text-align: right;">Page 9</p> <p>1 we'll ask that she lets us know so that we can</p> <p>2 repeat what we're saying.</p> <p>3 Is that fair?</p> <p>4 A Yes.</p> <p>5 Q And, again, you know, since we're, you know, 09:05:11</p> <p>6 at -- in a deposition, we need to give oral answers.</p> <p>7 We can't nod our head or shake. The court reporter</p> <p>8 needs to you answer for her.</p> <p>9 Is that fair?</p> <p>10 A Yes. 09:05:23</p> <p>11 Q And since it's on Zoom, it's -- sometimes</p> <p>12 it's a little hard to talk over each other. So we</p> <p>13 got to make sure -- you have to let me finish my</p> <p>14 question. I'm going to let you finish your answer</p> <p>15 unless your attorney, you know, objects accordingly 09:05:35</p> <p>16 if they need to.</p> <p>17 Is that fair?</p> <p>18 A Yes.</p> <p>19 Q So we're here today regarding a declaration</p> <p>20 you gave on claim construction; is that right? 09:05:45</p> <p>21 A Yes.</p> <p>22 Q And this declaration is directed to three</p> <p>23 different patents. The first patent is U.S.</p> <p>24 8,223,775.</p> <p>25 Is it -- is it all right with you if I refer 09:06:03</p>

<p style="text-align: right;">Page 10</p> <p>1 to that as the '775 patent?</p> <p>2 A Yes.</p> <p>3 Q And then the second patent is U.S. 8,284,690,</p> <p>4 and I'm going to refer to that as the '690 patent.</p> <p>5 Is that all right with you? 09:06:19</p> <p>6 A Yes.</p> <p>7 Q And then the third patent is U.S. 10,135,682.</p> <p>8 And I'll refer to that as the '682 patent.</p> <p>9 Is that all right with you?</p> <p>10 A Yes. 09:06:34</p> <p>11 Q So your opinions are directed only to those</p> <p>12 three patents?</p> <p>13 A In this declaration, I believe that is the</p> <p>14 case.</p> <p>15 Q Did you look at the other patents that are 09:06:44</p> <p>16 involved in this case?</p> <p>17 A I might have looked at them at some point. I</p> <p>18 don't specifically remember.</p> <p>19 Q Do you intend on offering any opinions</p> <p>20 relating to the other three patents that are being 09:06:59</p> <p>21 litigated as well?</p> <p>22 A I don't have any knowledge about what I might</p> <p>23 be asked to do in the future.</p> <p>24 Q Are you planning to present a technical</p> <p>25 tutorial to the Court? 09:07:19</p>	<p style="text-align: right;">Page 12</p> <p>1 materials cited in the declaration, the patents,</p> <p>2 Dr. Kramer's declaration, and met with counsel,</p> <p>3 Mr. Benyacar.</p> <p>4 Q And about how long did you spend reviewing</p> <p>5 materials? 09:08:51</p> <p>6 A Maybe about eight to ten hours. I don't have</p> <p>7 a good estimate for you.</p> <p>8 Q And how long did you meet with counsel for?</p> <p>9 A I think it was part of that time, maybe six</p> <p>10 to eight hours. 09:09:12</p> <p>11 Q And was there anyone else present besides</p> <p>12 David?</p> <p>13 A I don't believe so.</p> <p>14 Q When were you engaged by Charter for this</p> <p>15 matter? 09:09:28</p> <p>16 A My best recollection is it would have been</p> <p>17 sometime earlier this year.</p> <p>18 Q And have you ever worked for Charter in the</p> <p>19 past?</p> <p>20 A Yes. 09:09:44</p> <p>21 Q What type of case was it?</p> <p>22 A I believe that there were two of them. One</p> <p>23 they were sued by Sprint for patent infringement and</p> <p>24 then also they were accused of copyright</p> <p>25 infringement by a plaintiff representing copyright 09:10:08</p>
<p style="text-align: right;">Page 11</p> <p>1 A I don't have plans one way or another. I</p> <p>2 don't know the answer to that question as I sit here</p> <p>3 right now.</p> <p>4 Q Earlier you said you've been deposed around</p> <p>5 100 times. 09:07:34</p> <p>6 Have all those been for patent cases?</p> <p>7 A No.</p> <p>8 Q What other types of cases have you been</p> <p>9 involved in?</p> <p>10 A I believe there's been a couple of trade 09:07:45</p> <p>11 secret cases a couple of copyright cases.</p> <p>12 Q Have you been involved in any IPR proceedings</p> <p>13 at the U.S. Patent Office?</p> <p>14 A Yes.</p> <p>15 Q Are you planning to be involved in any IPRs 09:08:02</p> <p>16 for Charter?</p> <p>17 A I don't have plans one way or another as I</p> <p>18 sit here right now.</p> <p>19 Q Are you planning to give an infringement</p> <p>20 or -- sorry, a non-infringement opinion in this 09:08:20</p> <p>21 litigation?</p> <p>22 A As I sit here now, I don't have plans one way</p> <p>23 or another.</p> <p>24 Q What did you do prepare for today?</p> <p>25 A Generally reviewed my declaration and 09:08:31</p>	<p style="text-align: right;">Page 13</p> <p>1 holders for things like songs, music.</p> <p>2 Q And have you ever worked with Arnold &</p> <p>3 Porter, the attorneys representing Charter in this</p> <p>4 matter?</p> <p>5 A Yes, I have. 09:10:30</p> <p>6 Q And what -- what cases have you worked with</p> <p>7 them outside of the ones that you mentioned for</p> <p>8 Charter?</p> <p>9 A I actually know that I worked with them on</p> <p>10 the Sprint case. I'm not sure I worked with them on 09:10:44</p> <p>11 the other case, and then I've worked with them</p> <p>12 probably a couple of additional times on other</p> <p>13 cases. I don't have particular cases in mind,</p> <p>14 though.</p> <p>15 Q Have you spoken with any other experts that 09:10:59</p> <p>16 Charter has engaged in this -- for this matter?</p> <p>17 A I don't believe so.</p> <p>18 Q Have you talked to anyone by the name of</p> <p>19 Kathleen Quigley?</p> <p>20 A I don't believe so. I don't recall doing so 09:11:15</p> <p>21 sitting here right now.</p> <p>22 Q Have you spoken with anyone outside of the</p> <p>23 attorneys at A&P regarding this matter?</p> <p>24 A I don't believe so. I don't remember anyone</p> <p>25 sitting here right now. 09:11:39</p>

<p style="text-align: right;">Page 14</p> <p>1 Q So no one directly at Charter? You have not 2 been in contact with anyone directly at Charter? 3 A I don't believe so especially as it relates 4 to the subject matter of these patents. 5 Q What did you do to prepare your declaration? 09:11:59 6 A Reviewed the patents, the other materials 7 that are identified within the declaration, 8 determined what the scope of my assignment was, and 9 then formulated opinions. 10 Q Did you have input on what terms were going 09:12:29 11 to be involved in claim construction? 12 A As I sit here now, I don't specifically 13 recall if I did or not. I might have and -- and 14 don't specifically remember. 15 Q Were there terms that you suggested for 09:12:47 16 construction that were not put in your declaration? 17 A I don't believe so, or at least sitting here 18 now, I don't specifically recall. 19 Q Did you write the first draft of your 20 declaration? 09:13:10 21 A I would have. 22 Q About how many hours have you spent or did 23 you spend drafting your declaration? 24 A I don't have an ability to separate out hours 25 spent drafting versus developing opinions. All told 09:13:24</p>	<p style="text-align: right;">Page 16</p> <p>1 Is that fair? 2 A Absolutely. 3 I've -- I've actually got three windows open. 4 One is Exhibit Share. One is the Zoom and I 5 actually have the PDF for Exhibit 1 open. 09:14:55 6 But that's it. No other forms of 7 communication, that kind of thing. 8 Q Great. 9 A Downloaded what you've marked as Exhibit 2, 10 and I've got it opened. 09:15:09 11 Q Great. 12 And just sort of a follow-up to your computer 13 stuff, you're not going to be accessing your e-mails 14 during the course of our deposition today. 15 Is that fair? 09:15:18 16 A Yes, I will not do that. 17 Q Okay. 18 So if you could just go to the last page of 19 Exhibit 2 and just confirm -- well, actually not the 20 last page -- the last page of your actual 09:15:33 21 declaration of the appendix and just confirm that is 22 your signature. 23 A Yes. It looks like Page 44. Yes, that is my 24 signature. 25 Q In preparing for today, did you find any 09:15:51</p>
<p style="text-align: right;">Page 15</p> <p>1 I think it was in the neighborhood of about 20 hours 2 plus or minus. 3 Q I'm going to introduce your -- sorry. I 4 previously marked as Exhibit 1 your deposition 5 notice, so that should be in your exhibit folder: 09:13:42 6 (Exhibit 1 was marked for 7 identification and is attached 8 hereto.) 9 MS. ALLOR: I'm now going to mark as 10 Exhibit 2, your declaration. 09:13:53 11 (Exhibit 2 was marked for 12 identification and is attached 13 hereto.) 14 BY MS. ALLOR: 15 Q And due to the file size, once I do get it 09:14:05 16 introduced, I would recommend downloading it because 17 it is quite large because it might be easier to use 18 that. 19 A Great. I'll do that as soon as it shows up. 20 All right. 09:14:22 21 It just showed up. I am downloading it. 22 Q One thing I forgot to cover in the beginning 23 since we are on Zoom and you are on your computer, I 24 want to make sure you don't have any web pages open 25 besides the ones that are through Veritext. 09:14:41</p>	<p style="text-align: right;">Page 17</p> <p>1 errors in your declaration that you wish to correct? 2 A I -- in preparing for today, I did not find 3 anything that I thought needed to be corrected. 4 Q And I believe we have your CV attached as 5 Appendix A. If you could turn to that. 09:16:13 6 A Okay. 7 I have it up. 8 Q Does your CV accurately reflect your 9 education? 10 A I believe it does. 09:16:22 11 Q Does it accurately reflect your work 12 experience? 13 A I believe it does. 14 Q Is there anything that's missing from your CV 15 that would be relevant to the proceedings today? 09:16:35 16 A Not that I can think of. It looks to be 17 pretty accurate in terms of the things that normally 18 get added over time. So the very end of the 19 declaration which identifies cases that I've been 20 deposed in, I believe that was accurate as of the 09:16:56 21 time this declaration was filed. There might be a 22 couple of other cases, and then with respect to some 23 of the service work that I do serving on program 24 committees, there might be a couple of additional 25 program committees for some of the conferences that 09:17:14</p>

<p style="text-align: right;">Page 18</p> <p>1 are listed there, but I think otherwise, 2 it's -- it's accurate. 3 Q Would any of the more recent cases that may 4 not be listed, would any of those have to do with 5 cable television signal processing and communication 09:17:29 6 systems? 7 A I don't believe so. 8 Q Besides for this current case that you're 9 involved in, what other cases would involve 10 technology relating to cable television, signal 09:17:46 11 processing and communication systems that are listed 12 on your CV? 13 A I could go through and try and identify the 14 ones. I suspect the first case with Charter would 15 be relevant. 09:18:24 16 Let me just ask for clarification. Do you 17 want me to go and potentially identify cases that 18 would be relevant. 19 Q I was just curious if any came up in your 20 mind or in looking at your list that -- that relate 09:18:47 21 to cable television, signal processing and 22 communications? 23 A Okay. Certainly the Sprint versus Charter 24 one. I think there's also a Comcast versus Row V 25 (phonetic). 09:18:57</p>	<p style="text-align: right;">Page 20</p> <p>1 I've had that kind of experience. 2 Q Would any of these collaborations involve 3 developing the cable TV systems, whether that be, 4 you know, the broadband communication systems or 5 solutions? 09:21:20 6 A Generally I have -- would have worked on the 7 technology itself as opposed to kind of the last 8 steps of, say, the manufacturing process for any 9 equipment that the various companies have worked on 10 or developed or used. 09:21:48 11 Q If we could go to Exhibit 2, your 12 declaration, Paragraph 27. 13 Here you give a definition of a POSITA for 14 this proceeding, if you could look at that. 15 A Yes, I've got that up. 09:22:13 16 Q So which part of this definition do you 17 contend that you qualify as a POSITA under? 18 A All of them. 19 Q So you worked in the field of cable 20 television signal processing and communication 09:22:49 21 systems for three or more years? 22 A Yes, ma'am. 23 Q And is that the work you were talking about, 24 the collaboration work, or are you referring to your 25 expert witness work? 09:23:01</p>
<p style="text-align: right;">Page 19</p> <p>1 That was a little bit higher layer in the 2 protocol stack, but it was cable related. 3 There's the Sony Music. I think Cox is on 4 here. Charter should be on here somewhere. 5 Those related more to the content delivery 09:19:18 6 itself, though, of course, that content has to be 7 processed, and the content is sent over DOCSIS. So 8 those might potentially be related. Those are the 9 ones that come to mind. 10 Any of the ones on the list for -- I think 09:19:42 11 there was Cox, Charter. Let's see if Comcast is on 12 here. 13 There's a Comcast IPR against Row v. Guides 14 (phonetic). That might have some -- some relevance 15 as well. So generally it's some of the different 09:20:01 16 cable providers, Comcast, Charter, Cox, those kinds 17 of companies. 18 Q And besides doing expert witness work on 19 those cases for those companies, have you ever 20 worked in the cable TV industry? 09:20:26 21 A Not as I would characterize as an employee. 22 But I've had collaborations with a number of 23 different companies who were working in this space 24 and then also, you know, working on some of the 25 underlying technologies as an academic researcher. 09:20:55</p>	<p style="text-align: right;">Page 21</p> <p>1 A I am referring to both of those things plus 2 working in the field as a researcher since at least 3 1994. 4 Q If you look at Paragraph 25 of your 5 declaration. 09:23:31 6 A Yes. 7 Q So there you list the materials that you 8 reviewed in preparing your declaration. Is there 9 anything missing from this list? 10 A As of the time that I filed this declaration, 09:23:42 11 I believe this list is complete especially in the 12 context of referencing materials that are -- that 13 are part of the declaration cited in the 14 declaration. 15 Q Were you asked to search for dictionaries or 09:23:58 16 other extrinsic evidence that was not included with 17 your declaration? 18 A I don't specifically recall. I think that 19 the things included in the declaration are 20 ultimately what I relied on in forming my opinions, 09:24:22 21 plus my knowledge and experience in the field. 22 Q There's a couple dictionaries included as 23 appendices -- sorry -- subject dictionaries included 24 as appendices to your declaration. For example, 25 Appendix B is Newton's Telecom Dictionary. 09:24:42</p>

<p style="text-align: right;">Page 22</p> <p>1 Did you locate that dictionary for counsel?</p> <p>2 A I don't specifically recall. I don't think</p> <p>3 so. Obviously there are some dictionaries that are</p> <p>4 commonly used in claim construction. I think that's</p> <p>5 one of them, so... But I don't specifically recall 09:25:09</p> <p>6 suggesting that one.</p> <p>7 Q What about Appendix C, which is the Microsoft</p> <p>8 Computer Dictionary?</p> <p>9 Is that one that you suggested to counsel to</p> <p>10 use for your declaration? 09:25:24</p> <p>11 A I think it's about the same answer. I don't</p> <p>12 think that I did. I don't specifically recall that</p> <p>13 I did, but it's one that I have seen and used in my</p> <p>14 work.</p> <p>15 Q So I want to start with your opinion on the 09:25:37</p> <p>16 '775 patent. So I will introduce that for you so</p> <p>17 you have it available.</p> <p>18 A It just appeared.</p> <p>19 Q Shoot. The label didn't get on there.</p> <p>20 We'll -- we'll fix that afterwards. It didn't apply 09:26:19</p> <p>21 the label.</p> <p>22 A Okay. It's in the file name. I should be</p> <p>23 able to refer to it.</p> <p>24 But, yes, I've got it open.</p> <p>25 Q Okay. 09:26:28</p>	<p style="text-align: right;">Page 24</p> <p>1 Q If you look at Appendix C of your</p> <p>2 declaration, the Microsoft Computer Dictionary, one</p> <p>3 of the pages that you included was actually a</p> <p>4 definition for DOCSIS.</p> <p>5 It's on actually two different pages. The 09:28:13</p> <p>6 first one is the full, data over cable service</p> <p>7 interface specification, and then on the next page</p> <p>8 it says the actual definition for DOCSIS.</p> <p>9 Do you see those?</p> <p>10 A I do. 09:28:28</p> <p>11 Q Is there a reason you didn't cite to these</p> <p>12 definitions in your declaration?</p> <p>13 A Not that I can think of.</p> <p>14 Q Was there a purpose for including them in the</p> <p>15 appendix? 09:28:43</p> <p>16 A I'm trying to see if there was something else</p> <p>17 on the page that was specifically referenced that</p> <p>18 might have been the reason. But not that I</p> <p>19 specifically recall.</p> <p>20 Q If we turn to Paragraph 40 of your 09:29:04</p> <p>21 declaration.</p> <p>22 A I'm there.</p> <p>23 Q Here you've included an image and then you</p> <p>24 are discussing an ARM processor.</p> <p>25 A Yes. 09:29:31</p>
<p style="text-align: right;">Page 23</p> <p>1 So we've got -- we've got the '775 patent,</p> <p>2 which has been marked as Exhibit 3.</p> <p>3 (Exhibit 3 was marked for</p> <p>4 identification and is attached</p> <p>5 hereto.) 09:26:33</p> <p>6 BY MS. ALLOR:</p> <p>7 Q And it also bears the Bates No. Entropic_</p> <p>8 Charter_0000001.</p> <p>9 When you were preparing your declaration and</p> <p>10 opinion with respect to the '775 patent, what date 09:26:52</p> <p>11 did you use as the priority date?</p> <p>12 A My recollection is I assumed for purposes of</p> <p>13 the priority date, the filing date September 30th,</p> <p>14 2003.</p> <p>15 Q And did you identify that anywhere in your 09:27:09</p> <p>16 declaration?</p> <p>17 A I don't have the declaration memorized. It's</p> <p>18 either there or it's not.</p> <p>19 Q And so you were -- you were basing your</p> <p>20 opinion on that priority date; is that correct? 09:27:32</p> <p>21 A For the '775, that's what I had assumed.</p> <p>22 Q And you would agree that as of that priority</p> <p>23 date, September 30, 2003, a POSITA would have been</p> <p>24 familiar with DOCSIS function?</p> <p>25 A I think that's reasonable. 09:27:54</p>	<p style="text-align: right;">Page 25</p> <p>1 Q Is that correct?</p> <p>2 A Yes.</p> <p>3 Q What is your understanding of an ARM</p> <p>4 processor?</p> <p>5 A Essential what's here, it's Advanced RISC 09:29:35</p> <p>6 Machine. RISC stands for reduced instruction set</p> <p>7 computer -- controller, I think. I don't remember</p> <p>8 exactly what the c is. But you can have specialized</p> <p>9 ARM processors to perform functions for whatever</p> <p>10 they are designed to include. 09:29:57</p> <p>11 Q So what is an Advanced RISC Machine?</p> <p>12 A I'm not sure what else you would be asking</p> <p>13 for in terms of the description.</p> <p>14 Q Well, there's a definition included in</p> <p>15 Appendix C that you provided with your declaration. 09:30:28</p> <p>16 Are those -- if you turn to Appendix C,</p> <p>17 Microsoft Computer Dictionary, Pages 21 has Advanced</p> <p>18 RISC.</p> <p>19 Is that a fair definition for it?</p> <p>20 A I think it's on Page 35 at the top. Let me 09:30:50</p> <p>21 read it.</p> <p>22 I mean, I think it's a definition for what an</p> <p>23 ARM is. I haven't specifically taken a position or</p> <p>24 offered a particular construction for that term.</p> <p>25 I don't recall that it's -- maybe it appears 09:31:30</p>

7 (Pages 22 - 25)

<p style="text-align: right;">Page 26</p> <p>1 in one of the dependent claims or -- or something. 2 But I certainly think it's the definition that's 3 included in that dictionary. 4 Q And did -- was there a reason for including 5 these pages of the dictionary, the one that has both 09:31:52 6 Advanced RISC and ARM, is there a reason for 7 including those with your declaration? 8 A I think the declaration pretty much speaks 9 for itself on why they were included in terms of 10 providing some context for understanding what the 09:32:07 11 specification discloses with respect to the alleged 12 invention. 13 Q So are you -- are you saying you relied on 14 these definitions in your declaration? 15 MR. BENYACAR: Object to the form. 09:32:26 16 THE DEPONENT: To the extent that I have 17 identified these definitions in the declaration to 18 support the paragraphs in which those descriptions 19 appear, that would be the context for how I have 20 used those definitions in my declaration. 09:32:44 21 BY MS. ALLOR: 22 Q Oh, so you -- you do cite to Appendix C at 35 23 in Paragraph 40 of your declaration, but there's no 24 citation that I can find to para- -- to Page 21 of 25 that dictionary. 09:33:14</p>	<p style="text-align: right;">Page 28</p> <p>1 than what I said in my previous answer. I'm not 2 sure I have developed an opinion about whether or 3 not they would be a plain and ordinary meaning that 4 I -- that I've offered that kind of analysis or 5 opinion in the declaration. 09:35:15 6 Q Would you agree that ARM processors were 7 widely known in the art in the time period of the 8 '775 patent? 9 A Well, I think they were certainly known and 10 referenced with respect to qualifying that -- to be 09:35:39 11 saying widely known or not, I think they were 12 certainly known to people of skill in the art. They 13 were probably widely known. I don't think I've 14 taken a formal position on that. 15 Q So if a POSITA was reading a reference from 09:36:02 16 that time period and they saw the -- the phrase ARM 17 processor, they would understand what that meant, 18 right? 19 A That's a little bit broader statement and it 20 really depends on what kind of ARM processor and in 09:36:19 21 what context. 22 I think a person of skill in the art reading 23 ARM in the context of the '775 patent would 24 understand how that term is used in the '775. 25 Q So if we could turn to Figure 1 of the 09:36:47</p>
<p style="text-align: right;">Page 27</p> <p>1 So I guess my question is, why -- why did you 2 include the Page 21 that has the definition of 3 Advanced RISC? 4 A I think it provides some background, some 5 context for what's described in the declaration. 09:33:36 6 Q So you would say it's a fair definition that 7 a POSITA would -- would find this to be a fair 8 definition for Advanced RISC? 9 A With respect to a fair definition or a kind 10 of formal definition, I don't think I've taken a 09:33:51 11 position that that's what the term should be defined 12 as specifically. It's really just providing some 13 background. 14 It's not, that I call, a term in a particular 15 claim that I looked at. So it -- it's not a really 09:34:13 16 formal construction that I would be offering, but I 17 think the -- the dictionaries that are included in 18 the definition, they do provide some context for 19 what a person of skill in the art would have 20 understood an ARM processor to be. 09:34:28 21 Q And so it's fair to say that these two 22 definitions that are included in the Microsoft 23 Computer Dictionary would be -- would be the plain 24 and ordinary meaning to a POSITA of an ARM? 25 A Yeah. I think that's -- that's different 09:34:57</p>	<p style="text-align: right;">Page 29</p> <p>1 '775 patent. 2 A Okay. 3 Q And if you look at the block -- the first 4 block at the top that's labeled "data networking 5 engine," and I will probably refer to that as DNE. 09:37:00 6 Is that okay with you? 7 A Yes. 8 Q So you see the DNE and there's, in 9 parentheses, ARM No. 3? 10 A Yes. 09:37:12 11 Q What would that mean to a POSITA when they 12 were looking at the '775 patent? 13 A I believe it's described in the 14 specification. Let me -- well, I think there's 15 references -- I mean, 114 talks about an ARM 09:38:14 16 processor. That's around Column 3. And then in 17 column 4 it basically just says ARM1 and ARM2, and 18 it doesn't specifically call out ARM3. That's kind 19 of the additional processor described around 20 Line 62. 09:38:43 21 So I mean there's a couple different places 22 in the specification where it just generally 23 references the use of an ARM processor. 24 Q And so the next -- the next block down is -- 25 there's three boxes within a box called "Cable Modem 09:39:03</p>

<p style="text-align: right;">Page 30</p> <p>1 Engine."</p> <p>2 A Yes. I see that.</p> <p>3 Q And is it -- is it all right with you if I</p> <p>4 refer to the cable modem engine throughout our</p> <p>5 discussion as the CME? 09:39:17</p> <p>6 A Yes. That's fine.</p> <p>7 Q Okay.</p> <p>8 And so CME is labeled as Box 110.</p> <p>9 A I see that.</p> <p>10 Q Would you -- would you agree that there is 09:39:26</p> <p>11 two processors listed as ARM1 and ARM2 within that</p> <p>12 CME?</p> <p>13 A There are two -- at least two processors,</p> <p>14 ARM1, ARM2. I had actually looked to see whether or</p> <p>15 not Box 112 is described as a processor of any type 09:39:46</p> <p>16 and I -- I didn't see that the specification ever</p> <p>17 said that it was. So it looks like there's really</p> <p>18 just the two.</p> <p>19 Q And would a POSITA looking at the CME and the</p> <p>20 ARM1 and ARM2, would they know what was being 09:40:18</p> <p>21 referred to there?</p> <p>22 A That question is a little bit vague with</p> <p>23 respect to would they know what's being referred to.</p> <p>24 They would see the reference to ARM1 and</p> <p>25 ARM2. I think based on the specification there 09:40:36</p>	<p style="text-align: right;">Page 32</p> <p>1 A It's just describing a particular type of ARM</p> <p>2 processor.</p> <p>3 Q And is there a significance to the word</p> <p>4 "based" in that phrase?</p> <p>5 A I'm not sure what you're asking. It says 09:42:25</p> <p>6 based, so it would be for the particular type of ARM</p> <p>7 processor there's some characteristics beyond just a</p> <p>8 general ARM processor. And so saying that it's --</p> <p>9 it's based would indicate that it's describing maybe</p> <p>10 processors within that family of processors. 09:42:55</p> <p>11 Q So is it fair to say that RISC processors are</p> <p>12 a family of a type of processors?</p> <p>13 A It depends.</p> <p>14 Q What does it depend on?</p> <p>15 A Which processors you're talking about, 09:43:16</p> <p>16 whether they have families, whether or not you</p> <p>17 consider the different versions of the processors to</p> <p>18 be in the same families. It depends.</p> <p>19 Q Is it fair to say an ARM processor is just a</p> <p>20 processor that implements a particular ARM core? 09:43:34</p> <p>21 A It depends on the context in terms of how</p> <p>22 much specificity you need or want in providing a</p> <p>23 description as to what the processor is.</p> <p>24 Q So the ARM9 TDMI, is it fair to say that that</p> <p>25 refers to a family of general purpose 09:44:04</p>
<p style="text-align: right;">Page 31</p> <p>1 would be an understanding that those would be</p> <p>2 processors specific to what's labeled as the DOCSIS</p> <p>3 controller and the DOCSIS MAP processor</p> <p>4 respectively.</p> <p>5 But with respect to would they know what the 09:40:52</p> <p>6 DOCSIS controller was or what functions it</p> <p>7 performed, I think you'd have to look at the</p> <p>8 specification, since I think I've opined those are</p> <p>9 not terms of art, and there is some overlap between</p> <p>10 what the specification describes and then that 09:41:14</p> <p>11 becomes somewhat problematic, I think, which is</p> <p>12 one -- one of bases for my indefiniteness opinions.</p> <p>13 Q So I think you were looking at Column 3 when</p> <p>14 you answered a question for me earlier and pointing</p> <p>15 to the ARM processors that are described there. 09:41:29</p> <p>16 Is that fair?</p> <p>17 A Yes. I did point to Column 3.</p> <p>18 Q And at line -- Column 3, Line 17, it says (as</p> <p>19 read):</p> <p>20 "Processor 114 is an ARM9 09:41:47</p> <p>21 TDMI-based RISC processor."</p> <p>22 Do you see that?</p> <p>23 A I do.</p> <p>24 Q What does that phrase, ARM9 TDMI based RISC</p> <p>25 processor mean to you? 09:42:04</p>	<p style="text-align: right;">Page 33</p> <p>1 microprocessors?</p> <p>2 A I don't believe I've taken a position on</p> <p>3 whether or not they are general purpose or not. In</p> <p>4 a general sense, someone can probably characterize</p> <p>5 them as general purpose. 09:44:35</p> <p>6 Q So as of the priority date of the</p> <p>7 '775 patent, September 30, 2003, is it fair to say</p> <p>8 that there were many known types of general</p> <p>9 processors?</p> <p>10 MR. BENYACAR: Object to the form. 09:44:55</p> <p>11 THE DEPONENT: I haven't really tried to</p> <p>12 answer that question. I suppose it depends on what</p> <p>13 you would consider a general processor, what would</p> <p>14 be considered many. So it -- it probably depends.</p> <p>15 BY MS. ALLOR: 09:45:21</p> <p>16 Q Well, as a POSITA, what would you consider a</p> <p>17 general processor to be?</p> <p>18 A I haven't really tried to define that term in</p> <p>19 the context of these patents or established some</p> <p>20 threshold for determining what's a general processor 09:45:33</p> <p>21 versus not.</p> <p>22 Q You can't provide me with an explanation as a</p> <p>23 POSITA of what a general processor is as of 2003?</p> <p>24 A With respect to some formal definition, I</p> <p>25 don't believe I've included it in the declaration. 09:45:52</p>

<p style="text-align: right;">Page 34</p> <p>1 So I'm not really prepared to give you a formal 2 opinion on the fly.</p> <p>3 Q What is a circuit?</p> <p>4 A That is a good question. It really doesn't 5 have a particular definition in the context of the 09:46:16 6 '775 patent.</p> <p>7 I think as my declaration says, there's 8 particular definitions of what a circuit can be and 9 then trying to understand what that term means with 10 any kind of reasonable certainty in the '775 patent 09:46:40 11 becomes difficult, if not impossible.</p> <p>12 Q There's no known definition for a circuit as 13 of 2003?</p> <p>14 MR. BENYACAR: Object to the form.</p> <p>15 THE DEPONENT: That's not what I said. 09:47:04 16 BY MS. ALLOR:</p> <p>17 Q If you turn to Appendix C at Page 100 of your 18 PDF exhibit -- Exhibit 2 of your declaration, you've 19 included a definition from the Microsoft Computer 20 Dictionary for a circuit. 09:47:27</p> <p>21 Isn't that right?</p> <p>22 A Appendix B is Newton, so maybe Appendix C.</p> <p>23 Q I'm sorry. Appendix C. C. On Page 100.</p> <p>24 A Yes. I've included that definition of 25 circuit and referenced in Paragraph 65 of my 09:47:49</p>	<p style="text-align: right;">Page 36</p> <p>1 circuits."</p> <p>2 A So I -- I think that is a definition of 3 circuit and I think applying that kind of definition 4 in the context of the claims at issue in the '775 5 creates a problem of what the reasonable certainty 09:49:14 6 of the scope of the claims are for the reasons set 7 forth in the declaration.</p> <p>8 Q That analysis you've done in your 9 declaration, that's really an infringement analysis 10 not a claim construction? 09:49:31</p> <p>11 MR. BENYACAR: Object to the form.</p> <p>12 THE DEPONENT: I -- are you asking me or is 13 that your characterization?</p> <p>14 BY MS. ALLOR:</p> <p>15 Q Yeah. Yes. I'm asking. 09:49:42</p> <p>16 A I -- I disagree.</p> <p>17 Q So the question in claim construction is 18 whether or not a POSITA would understand the term, 19 and are you telling me that you don't understand 20 what a circuit is? 09:49:56</p> <p>21 A I disagree with your characterization of the 22 question. It's not -- the question of 23 indefiniteness is not whether or not a definition 24 for a term would have existed, but whether or not a 25 person of skill in the art, at the time of patent, 09:50:14</p>
<p style="text-align: right;">Page 35</p> <p>1 declaration.</p> <p>2 And I think attempting to apply that 3 definition of circuit in the context of the 4 '775 patent leads to problems with understanding 5 what the scope of the claims are and the fact that 09:48:11 6 there's isn't reasonable certainty as to what the 7 scope of the claim would be trying to apply this 8 kind of definition.</p> <p>9 Q So my question was actually: Is that what a 10 circuit is? 09:48:31</p> <p>11 Is that definition you have provided in 12 Appendix C, where it says (as read):</p> <p>13 "Circuit, No. 1, any path that can 14 carry electrical current. 15 Number 2, the combination of 09:48:41 16 electrical components interconnected 17 to perform a particular task." 18 Are those definitions of circuits?</p> <p>19 MR. BENYACAR: Objection. You didn't read 20 the whole definition. 09:48:52</p> <p>21 BY MS. ALLOR:</p> <p>22 Q Oh, I'm sorry. (As read):</p> <p>23 "At one level a computer consists 24 of a single circuit, at another it 25 consists of hundreds of interconnected 09:49:00</p>	<p style="text-align: right;">Page 37</p> <p>1 could determine the scope of the claim with 2 reasonable certainty.</p> <p>3 So this definition demonstrates that there is 4 ambiguity with respect to how the claim is 5 describing and claiming a circuit. Given that it 09:50:32 6 could mean lots of different things, a person of 7 skill in the art would not know how to interpret 8 what a circuit was in the context of the claims.</p> <p>9 Q But a POSITA reading the '775 patent would 10 know what a circuit is and would understand that 09:50:56 11 this definition you provided are two possible 12 definitions for a circuit; is that correct?</p> <p>13 A A person of skill in the art reading the 14 specification would have in mind what a circuit is 15 consistent with what I think I've identified in 09:51:13 16 Paragraph 65, but that definition results in 17 unreasonable certain -- uncertainty with respect to 18 what the scope of the claims are and how the claims 19 are claiming a circuit. The claims don't say what a 20 circuit is supposed to be in the context of the 09:51:32 21 alleged invention.</p> <p>22 And so the -- part of the definition 23 demonstrates the range of ambiguity -- sorry -- the 24 range of possible definition for what a circuit 25 could be. I think focusing on -- it has lots of 09:51:50</p>

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<p style="text-align: right;">Page 38</p> <p>1 different definitions at different levels.</p> <p>2 So at one level it can mean a single circuit,</p> <p>3 at another it could be a set of hundreds of</p> <p>4 interconnected circuits. It could be a circuit</p> <p>5 board, it could be a whole chip. And so the 09:52:04</p> <p>6 specification doesn't say which level of the circuit</p> <p>7 to use in understanding what the scope of the claims</p> <p>8 are. And so that results in unreasonable certainty</p> <p>9 or uncertainty with respect to what the scope of the</p> <p>10 claims are. 09:52:31</p> <p>11 Q So if the court were to construe the term</p> <p>12 circuit with respect to the '775 patent according to</p> <p>13 this first definition given in the Microsoft</p> <p>14 Computer Dictionary, the definition says (as read):</p> <p>15 "Any path that can carry electrical 09:52:45</p> <p>16 current."</p> <p>17 Would it be your opinion that the claim --</p> <p>18 the claims are indefinite if that is the definition</p> <p>19 of circuit?</p> <p>20 A Yes. 09:52:57</p> <p>21 Q So you wouldn't be able to define the</p> <p>22 boundaries of the first and second circuit based on</p> <p>23 this definition?</p> <p>24 A It's not the boundaries of -- of any circuit.</p> <p>25 If we look at the '775 patent, for example 09:53:14</p>	<p style="text-align: right;">Page 40</p> <p>1 understanding what the scope of the claims is</p> <p>2 especially in the context of how the second circuit</p> <p>3 has to be separate from the first circuit.</p> <p>4 Q Well, the claims itself -- claim 18 itself</p> <p>5 says it would be separate -- separated by a data 09:55:11</p> <p>6 box, correct?</p> <p>7 MR. BENYACAR: Object to the form.</p> <p>8 THE DEPONENT: I don't think claim 18 is</p> <p>9 saying that the data bus establishes what the</p> <p>10 separate requirement is, that just having a data bus 09:55:30</p> <p>11 between the two would be sufficient to establish the</p> <p>12 separateness between the first circuit and the</p> <p>13 second circuit.</p> <p>14 In fact, I think that was an issue I've</p> <p>15 addressed in the declaration as it relates to the 09:55:44</p> <p>16 prosecution history.</p> <p>17 BY MS. ALLOR:</p> <p>18 Q I don't think that was my question though.</p> <p>19 My question was: If we apply this first</p> <p>20 construction and you look at the -- the language of 09:55:54</p> <p>21 the claim, there's a data networking engine</p> <p>22 implementing -- or implemented in a first circuit</p> <p>23 and then we've got a cable modem implemented -- a</p> <p>24 cable modem engine implemented in a second circuit,</p> <p>25 and then we have got a data bus that connects the 09:56:11</p>
<p style="text-align: right;">Page 39</p> <p>1 claim 1, you have a data network engine implemented</p> <p>2 in a first circuit, you have a cable modem engine</p> <p>3 implemented in a second circuit, and so those have</p> <p>4 to be separate from each other.</p> <p>5 And -- and that becomes the issue with 09:53:36</p> <p>6 respect to how do you define what's part of the data</p> <p>7 network engine circuit and what's part of the cable</p> <p>8 modem engine circuit, and then trying to understand</p> <p>9 how those are supposed to be separate.</p> <p>10 Q And I believe you turned to claim 1, but I 09:53:55</p> <p>11 don't think claim 1 is at issue here.</p> <p>12 So is your opinion the same with respect to</p> <p>13 claim 18?</p> <p>14 A Yes.</p> <p>15 Q So if the construed circuit to mean any path 09:54:15</p> <p>16 that can carry electrical current, it's your opinion</p> <p>17 that a data networking engine implemented in a first</p> <p>18 circuit would be indefinite?</p> <p>19 A Yes.</p> <p>20 Q And the same question with respect to a cable 09:54:36</p> <p>21 modem implemented in the second circuit.</p> <p>22 It's your opinion that if the court applied</p> <p>23 that first construction from the dictionary, that</p> <p>24 that -- that term would be indefinite?</p> <p>25 A That term would be indefinite with respect to 09:54:48</p>	<p style="text-align: right;">Page 41</p> <p>1 data networking engine to the cable mode engine.</p> <p>2 So my question is: If we're applying the</p> <p>3 definition of circuit that says any path that can</p> <p>4 carry electrical current, can you not identify where</p> <p>5 the first circuit and the second circuits are? 09:56:25</p> <p>6 A You're question implies that you have a</p> <p>7 system and you're attempting to apply the claim</p> <p>8 against that system.</p> <p>9 While there might be examples of systems</p> <p>10 where you could identify a first circuit and a 09:56:48</p> <p>11 second circuit, the problem with using that</p> <p>12 definition of circuit, a person of skill in the art</p> <p>13 is not able to determine with reasonable certainty</p> <p>14 what the scope of the claim is with respect to what</p> <p>15 constitutes the first circuit and what would 09:57:00</p> <p>16 constitute the second circuit. And that's</p> <p>17 particularly problematic when there's a claim</p> <p>18 requirement that the second circuit be separate from</p> <p>19 the first circuit.</p> <p>20 What the claim -- the patent doesn't specify 09:57:16</p> <p>21 what's required for that separateness to be achieved</p> <p>22 and so that has an impact on how you apply or what</p> <p>23 could constitute a first or a second circuit.</p> <p>24 Q If we look at the second definition (as</p> <p>25 read): 09:57:38</p>

<p style="text-align: right;">Page 42</p> <p>1 "A combination of electric 2 components interconnected to perform a 3 particular task," ignoring the second 4 half of that, if the Court were to 5 apply that definition, would the 09:57:51 6 term -- would the term in a first 7 circuit and in a second circuit still 8 be indefinite too? 9 MR. BENYACAR: Object to the form. 10 THE DEPONENT: The phrases as to a first 09:58:06 11 circuit that includes at least one processor and 12 then continues from there and then a cable modem 13 engine implemented in a second circuit and that it 14 be separate from the first and second circuit, I 15 think it would be separate even if person skilled in 09:58:26 16 the art even attempting to apply that second 17 definition would recognize there's uncertainty with 18 respect to what the scope of the claim should be. 19 BY MS. ALLOR: 20 Q So a POSITA wouldn't be able to read the 09:58:41 21 specification and understand that the first circuit, 22 the data networking engine, would be implementing 23 tasks differently or different tasks from the cable 24 modem engine that's implemented in the second 25 circuit? 09:59:00</p>	<p style="text-align: right;">Page 44</p> <p>1 Is that -- is that fair? 2 A I don't believe the specification uses the 3 term "circuit." So I don't know that it provides 4 any context for how that term should be understood 5 in the specification or the... 10:00:34 6 Q But you would agree that a POSITA at the time 7 of invention in 2003, someone with three years of 8 experience and an undergraduate degree in electrical 9 engineering would understand what a circuit is? 10 A They would understand -- they would 10:00:55 11 understand that there's definitions of circuits that 12 are quite broad and non-specific as to what the 13 scope of a circuit would include. 14 As the definition says, it could -- there's a 15 lot of different levels at which you could determine 10:01:13 16 what a circuit would be, and the patent doesn't 17 provide any guidance on which of those levels to 18 use. 19 And so it's unclear what the scope of a 20 circuit would need to be in order to meet the 10:01:26 21 requirements of Page 18 and 19. 22 Q But they would at least have an understanding 23 of the different types of circuits, correct? 24 A I think a person of skill in the art would 25 understand that there are many different levels at 10:01:44</p>
<p style="text-align: right;">Page 43</p> <p>1 A So two things. Reading the specification, 2 there's no description of what a circuit is. I 3 don't think the term "circuit" is used anywhere 4 except in the claims. 5 With respect to a person of skill in the art 09:59:10 6 understanding what the functions are, certainly 7 there are exemplary functions for each of those two 8 engines, but that doesn't help inform a person of 9 skill in the art as to what the scope of the circuit 10 would include. 09:59:33 11 And even applying the second definition that 12 says (as read): 13 "A combination of components 14 interconnected to perform a 15 particular task," there's no context 09:59:41 16 provided in the specification as to 17 where -- where that circuit would 18 end especially where those two 19 circuits have to also be separate. 20 And so it becomes problematic to understand 09:59:59 21 what the scope of the claim is with respect to what 22 would constitute the required circuits and the 23 required separateness. 24 Q You said there's no description of what a 25 circuit is in the specification. 10:00:18</p>	<p style="text-align: right;">Page 45</p> <p>1 which circuits can be identified, and it requires 2 context to understand which level is appropriate in 3 describing what a circuit is and that the 4 specification doesn't provide any guidance on what 5 level the claims should be understood to be read at. 10:02:02 6 Q Would a POSITA understand a processor to be a 7 circuit? 8 A I think a POSITA would understand that in 9 some context a processor could be a circuit. That's 10 one of the levels that is possible, but then that 10:02:23 11 creates problems in the context of how the 12 specification in the invention is described. I 13 think I've identified some of those in the 14 declaration. 15 Q Would a POSITA view a computer as a circuit? 10:02:36 16 A I think at one level it could be -- a 17 computer could be a circuit. A chip, a board, a set 18 of transistors, all of those are different levels 19 that could be considered a circuit. 20 And it's unclear which -- 10:03:04 21 Q So -- 22 A -- which of those levels to apply in the 23 context of Claims 18 and 19. 24 Q So it's your opinion that because there are 25 multiple possibilities for how to define a circuit 10:03:14</p>

<p style="text-align: right;">Page 46</p> <p>1 that makes it indefinite?</p> <p>2 A No. It's not a question of multiple</p> <p>3 definitions. It's that the definition includes</p> <p>4 multiple levels.</p> <p>5 And the different levels create ambiguity and 10:03:27</p> <p>6 uncertainty with respect to which of those levels</p> <p>7 the claims are requiring. One level, multiple</p> <p>8 levels any level, it wouldn't be clear to a person</p> <p>9 of skill in the art what the scope of the claim is</p> <p>10 supposed to include with respect to what level of 10:03:49</p> <p>11 circuit the claims are talking about.</p> <p>12 Q If you look at Paragraph 69 of your</p> <p>13 declaration here, you've included an annotated</p> <p>14 version of Figure 1 from the '775 patent.</p> <p>15 A Yes. 10:04:29</p> <p>16 Q And you've included -- one, two, three, four,</p> <p>17 five, six -- six red boxes.</p> <p>18 Do you see that?</p> <p>19 A Yes.</p> <p>20 Q And if we look at the red box at the top 10:04:49</p> <p>21 that's around the data networking engine 120, that</p> <p>22 includes ARM No. 3.</p> <p>23 Do you see that?</p> <p>24 A It does include ARM No. 3. It's a box around</p> <p>25 the entire Box 120 of which ARM 3 is part of that 10:05:04</p>	<p style="text-align: right;">Page 48</p> <p>1 MR. BENYACAR: Object to the form.</p> <p>2 THE DEPONENT: Could you repeat the question?</p> <p>3 BY MS. ALLOR:</p> <p>4 Q So earlier you -- you stated that you agreed</p> <p>5 with me that a processor is a circuit. 10:06:49</p> <p>6 Is that fair?</p> <p>7 MR. BENYACAR: Object to the form. Misstates</p> <p>8 testimony.</p> <p>9 THE DEPONENT: No. I said, applying the</p> <p>10 definition of a circuit, all sorts of different 10:07:00</p> <p>11 things could be circuits, and it's unclear which of</p> <p>12 those levels is -- the claim is talking about.</p> <p>13 So I think to be clear and so it's not taken</p> <p>14 out of context, Paragraph 69 is saying if the level</p> <p>15 is interpreted to be something related to its own 10:07:18</p> <p>16 specialized tasks, then that's one way that you</p> <p>17 could draw the set of circuits.</p> <p>18 There's a paragraph after it that shows a</p> <p>19 different level of the circuit. So a different</p> <p>20 meaning of the circuit. 10:07:38</p> <p>21 And then there's also a paragraph before</p> <p>22 where it's -- the whole thing is also a circuit.</p> <p>23 And so there's this ambiguity with respect to what</p> <p>24 the inventors intend to be the right level of the</p> <p>25 circuit. 10:07:54</p>
<p style="text-align: right;">Page 47</p> <p>1 box.</p> <p>2 Q And you would agree that is a processor</p> <p>3 included in the data networking engine?</p> <p>4 A I think the ARM 3 is a processor and it would</p> <p>5 be part of the data networking engine. 10:05:22</p> <p>6 Q Would you agree that that is showing that</p> <p>7 there is a circuit in the data networking engine?</p> <p>8 A When you say "that is showing," it's unclear</p> <p>9 what you are referring to.</p> <p>10 Q The box that you've drawn. Is your box that 10:05:45</p> <p>11 you've drawn around the data networking engine which</p> <p>12 we've just agreed include the processor, would you</p> <p>13 agree that that box is surrounding a circuit?</p> <p>14 A At one level of what a circuit could be, that</p> <p>15 box could be a circuit. And consistent with some of 10:06:06</p> <p>16 the rest of the figures, all sorts of other things</p> <p>17 could be circuits.</p> <p>18 And that ambiguity, the patent not describing</p> <p>19 what it means by a circuit, means it could be all</p> <p>20 sorts of different things all of which have 10:06:23</p> <p>21 different meanings and all of which affect the scope</p> <p>22 of the claims and create unreasonable certainty.</p> <p>23 Q But you would agree there's at least one --</p> <p>24 one circuit being disclosed for the data networking</p> <p>25 engine? 10:06:40</p>	<p style="text-align: right;">Page 49</p> <p>1 Is it the example that is shown above</p> <p>2 Paragraph 68? Is it the one above Paragraph 70? Is</p> <p>3 it the one above Paragraph 72? Is it the one above</p> <p>4 Paragraph 74?</p> <p>5 And these all have different scopes with 10:08:11</p> <p>6 respect to then what has to be separate, and so</p> <p>7 that's why there's no reasonable certainty with</p> <p>8 respect to what the claims describe.</p> <p>9 BY MS. ALLOR:</p> <p>10 Q But the fact that you can draw a box around 10:08:34</p> <p>11 the data networking engine that contains a</p> <p>12 processor, you can identify at least one circuit</p> <p>13 with that box.</p> <p>14 Is that right -- is that fair?</p> <p>15 A No. I don't think it's fair. The fact that 10:08:48</p> <p>16 you can do it one time doesn't mean that there's all</p> <p>17 sorts of other ways that can you draw the box that</p> <p>18 leads to no reasonable certainty as to what the</p> <p>19 scope of the claims mean.</p> <p>20 Just because you can do it once ignores the 10:09:01</p> <p>21 fact that there are others, and it's the existence</p> <p>22 of the one and the others and the uncertainty that</p> <p>23 exists that creates the problem.</p> <p>24 Q A POSITA looking at the specifications for</p> <p>25 the '775 patent, would they understand what was 10:09:41</p>

<p style="text-align: right;">Page 50</p> <p>1 meant by a data networking engine implemented in a</p> <p>2 first circuit that includes at least one processor?</p> <p>3 A I don't understand the question.</p> <p>4 Q Did they understand what -- the electrical</p> <p>5 components that are being used for the -- for the 10:10:10</p> <p>6 data networking engine implemented in a first</p> <p>7 circuit that includes at least one processor?</p> <p>8 A The uncertainty that I have with your</p> <p>9 question is when you say "would they understand."</p> <p>10 If -- if you're asking by "would they understand," 10:10:31</p> <p>11 would they understand the scope of what that is</p> <p>12 referring to, then the answer is no because there's</p> <p>13 no reasonable certainty as to what that would</p> <p>14 include.</p> <p>15 Q So when you are faced with a cable modem that 10:10:50</p> <p>16 contains a data networking engine and a cable modem</p> <p>17 engine, as a POSITA, would you understand what</p> <p>18 function each of those engines are performing?</p> <p>19 A It becomes somewhat circular. If -- if I was</p> <p>20 told what functions they were performing or if I had 10:11:43</p> <p>21 some -- some evidence that described what functions</p> <p>22 they were performing, then I would know what</p> <p>23 functions they were performing.</p> <p>24 But if you just handed me a cable modem,</p> <p>25 first of all, it's not clear to me what would be 10:12:05</p>	<p style="text-align: right;">Page 52</p> <p>1 So it's unclear, at least based on the</p> <p>2 specification, what the set of functions are that</p> <p>3 would constitute the DOCSIS controller and what set</p> <p>4 of functions there would be for the DOCSIS MAC</p> <p>5 processor. 10:13:57</p> <p>6 Q If we look at Figure 2 of the '775 patent,</p> <p>7 Figure 2 is described as a functional block diagram</p> <p>8 implementing the cable modem architecture of</p> <p>9 Figure 1.</p> <p>10 A I see that. 10:14:29</p> <p>11 Q And you see that the box at the top is</p> <p>12 labeled DNE-120?</p> <p>13 A Yes.</p> <p>14 Q Would you agree that the DNE includes a</p> <p>15 processor to perform the function being shown there? 10:14:46</p> <p>16 A My recollection is that DNE is described as</p> <p>17 having a processor to perform functions. I</p> <p>18 understood Figure 2 -- if you're saying that the DNE</p> <p>19 performs exactly the functions that are shown in</p> <p>20 Figure 2 and not other functions and that's what the 10:15:25</p> <p>21 invention is, then I certainly think DNE is showing</p> <p>22 that specific set of functions.</p> <p>23 Q I think we can agree that the specification</p> <p>24 is describing exemplary functions that the DNE-120</p> <p>25 performs. 10:16:03</p>
<p style="text-align: right;">Page 51</p> <p>1 considered the circuit for the data networking</p> <p>2 engine and the circuit for the cable modem engine</p> <p>3 and how they would be separate.</p> <p>4 It depends, again, on what level you consider</p> <p>5 the circuit to be and whether or not they are 10:12:27</p> <p>6 separate. But with respect to the functions, if I</p> <p>7 knew what the functions were, I could say what the</p> <p>8 functions were.</p> <p>9 Q Doesn't the specifications describe what the</p> <p>10 functions of the data networking engine are? 10:12:43</p> <p>11 A For the data networking engine, my</p> <p>12 recollection is there were some examples of what was</p> <p>13 described at least with respect to the data</p> <p>14 networking engine.</p> <p>15 Q And what about with respect to the cable 10:13:05</p> <p>16 modem engine?</p> <p>17 Does the specification describe exemplary</p> <p>18 functions that that would be performing?</p> <p>19 A Yeah, so that's part of the next problem,</p> <p>20 which is for both the DOCSIS controller and the 10:13:24</p> <p>21 DOCSIS MAC processor, there are examples of</p> <p>22 functions that are described. I think it's</p> <p>23 described as examples, and then they tend to be</p> <p>24 overlapping with respect to what those functions</p> <p>25 are. 10:13:39</p>	<p style="text-align: right;">Page 53</p> <p>1 Is that fair?</p> <p>2 A Right.</p> <p>3 So then it's kind of an open-ended list as to</p> <p>4 what the DNE is supposed to be performing. There</p> <p>5 are some examples, but there's not some constraint 10:16:11</p> <p>6 as to what functions the DNE is not supposed to be</p> <p>7 performing.</p> <p>8 Q Well, if we use the definition of circuit</p> <p>9 that's included in the Microsoft dictionary that you</p> <p>10 included with your declaration, would you agree that 10:16:32</p> <p>11 the DNE includes at least one circuit?</p> <p>12 A Applying that definition, it either is a</p> <p>13 circuit, is composed of many circuits, or is part of</p> <p>14 a circuit.</p> <p>15 Applying that definition, the specification 10:17:03</p> <p>16 doesn't say that the DNE is a circuit. So it --</p> <p>17 like I said, it could be -- it could have lots of</p> <p>18 circuits. It could itself be a circuit, a</p> <p>19 self-contained circuit, or it could be part of a</p> <p>20 larger circuit. 10:17:25</p> <p>21 There's no guidance in the specification as</p> <p>22 to how to apply the definition of a circuit with</p> <p>23 respect to what's required of the DNE.</p> <p>24 Q So you would agree there's at least one</p> <p>25 circuit being described in the DNE in Figure 2? 10:17:55</p>

<p style="text-align: right;">Page 54</p> <p>1 MR. BENYACAR: Object to the form. Misstates 2 the testimony.</p> <p>3 THE DEPONENT: I -- it depends on what level 4 of circuit you're applying.</p> <p>5 Like I said, it could either be lots of 10:18:09 6 circuits in the DNE, the DNE could be one circuit or 7 it could be lots of other circuits or it could be 8 part of one larger circuit. There's no guidance as 9 to which of those it is.</p> <p>10 BY MS. ALLOR: 10:18:29</p> <p>11 Q So the second box in Figure 2 is the -- it's 12 label CME, and that's the cable modem engine 110.</p> <p>13 Do you see that?</p> <p>14 A Yes.</p> <p>15 Q And would you agree that the CME- 110 10:18:41 16 includes at least one processor?</p> <p>17 A As described in 110, 110, I wouldn't say it's 18 described as at least one processor. There's at 19 least two processors in 110.</p> <p>20 Q So at least one includes a possibility of 10:19:11 21 two, would you agree?</p> <p>22 A I would agree that that's what at least one 23 means, but I don't think that's what 110 is showing.</p> <p>24 Q You don't think it's showing two processors?</p> <p>25 A No. I think 110 shows at least two 10:19:35</p>	<p style="text-align: right;">Page 56</p> <p>1 described with respect to the invention, the only 2 embodiment that's described in the '775 patent, I 3 think the answer would also be no.</p> <p>4 Q So two processors can't be part of the same 5 circuit? 10:21:45</p> <p>6 A Your question is a hypothetical with no 7 context to it. So removing any context associated 8 with the '775, I can envision instances where you 9 can implement functionality formerly implemented on 10 two processors on a single processor. 10:22:05</p> <p>11 That's not what's taught on a '775 patent and 12 it's -- so would make meeting all of the limitations 13 of Claim 18 essentially impossible.</p> <p>14 Q Okay.</p> <p>15 I think this might be a good time for a 10:22:23 16 break.</p> <p>17 THE VIDEOGRAPHER: Going off record, 18 10:22 a.m.</p> <p>19 (Recess.)</p> <p>20 THE VIDEOGRAPHER: We're back on record. 10:34:27 21 10:34 a.m.</p> <p>22 BY MS. ALLOR:</p> <p>23 Q Dr. Almeroth, before we went on break, we 24 were talking about your Appendix C, the Microsoft 25 Computer Dictionary definition of circuit. 10:34:45</p>
<p style="text-align: right;">Page 55</p> <p>1 processors, and in Figure 1, which is the same 110 2 box, it is showing the DOCSIS controller is ARM 3 No. 1 and the DOCSIS MAC is ARM No. 2.</p> <p>4 Q Is there any reason those couldn't be 5 implemented in a single processor? 10:19:58</p> <p>6 A That's not what the invention is described 7 as. It's -- if you implemented it as a single 8 processor, it's unclear how you would meet the 9 requirements of the Claim 18 and 19 with respect to 10 the requirement of being to able bypass the DOCSIS 10:20:25 11 controller to be able to send PDU packets and 12 forward them directly to the data networking engine 13 without the involvement of the DOCSIS controller.</p> <p>14 The invention is described as being a 15 processor for the DOCSIS controller and then a 10:20:47 16 separate processor for the DOCSIS MAC processor.</p> <p>17 Q And couldn't those be implemented into 18 processors that are part of the same circuit?</p> <p>19 A So your hypothetical as to could they be, it 20 depends on the constraints of the hypothetical. If 10:21:08 21 the constraint of the hypothetical is implemented in 22 a single processor in such a way that would be able 23 to meet the requirements of Claim 18, I don't think 24 so.</p> <p>25 Or that would be implemented in a way that's 10:21:24</p>	<p style="text-align: right;">Page 57</p> <p>1 If you could just look at that again.</p> <p>2 A Sure.</p> <p>3 Q So you understand that, you know, the outcome 4 of this process is, you know, that the judge is 5 going to construe terms in the patent, and one of 10:35:00 6 the terms that you are looking at is first circuit 7 and second circuit.</p> <p>8 Do you understand that?</p> <p>9 A Generally, I do.</p> <p>10 Q So if the Court decides to construe circuit 10:35:14 11 according to this definition that you have provided 12 in the Microsoft dictionary, any path that can carry 13 electrical current, is it your opinion that the 14 claim would be indefinite?</p> <p>15 A Yes. 10:35:35</p> <p>16 Q So you would disagree with the Court adopting 17 a definition for circuit?</p> <p>18 A No. The Court can adopt that definition for 19 circuit, but it still creates unreasonable -- I 20 would say unreasonable certainty. What I mean is no 10:35:53 21 reasonable certainty with respect to what the scope 22 of the claim is and what's actually being claimed as 23 the circuit.</p> <p>24 Q So if the Court adopts that definition, that 25 first definition, you wouldn't be able to perform a 10:36:07</p>

15 (Pages 54 - 57)

<p style="text-align: right;">Page 58</p> <p>1 infringement analysis.</p> <p>2 Is that -- is that fair?</p> <p>3 A The question of indefiniteness is not a test</p> <p>4 of whether or not you could perform an infringement</p> <p>5 analysis. Somebody like Dr. Kramer could draw boxes 10:36:22</p> <p>6 however they wanted.</p> <p>7 But with respect to a person of skill in the</p> <p>8 art attempting to develop a system that they</p> <p>9 believed wouldn't infringe because they either</p> <p>10 didn't want to have a first or second circuit or 10:36:37</p> <p>11 they didn't want them to be separate, it</p> <p>12 would -- there's no reasonable certainty on how</p> <p>13 to -- how to implement that functionality.</p> <p>14 Dr. Kramer could still come back and draw</p> <p>15 boxes however he wanted in order to say that the 10:36:54</p> <p>16 first circuit and the second circuit were separate.</p> <p>17 So there's no -- there's no guidance or scope of the</p> <p>18 claim that would exist that would allow a person of</p> <p>19 skill in the art to determine with reasonable</p> <p>20 certainty what the -- what the claim means, what the 10:37:12</p> <p>21 scope of the claim is.</p> <p>22 Q So we're, you know, looking at this</p> <p>23 definition and applying it to a cable modem. One</p> <p>24 way to not infringe would be to have this one</p> <p>25 single processor. 10:37:38</p>	<p style="text-align: right;">Page 60</p> <p>1 meet another part of the claim, but if you had two</p> <p>2 different processors, again, it becomes a box</p> <p>3 drawing exercise that it's not clear to a person of</p> <p>4 skill in the art what the scope of the claim would</p> <p>5 be. 10:39:36</p> <p>6 Q Are you saying it's not clear from the claim</p> <p>7 language whether two processors are required?</p> <p>8 A That's not what I'm saying.</p> <p>9 Q Well, my question was, if there was only one</p> <p>10 processor in your cable modem system, would you meet 10:39:51</p> <p>11 the claim?</p> <p>12 A I would have to see what that system looked</p> <p>13 like. It likely would not, but it depends.</p> <p>14 I mean, maybe there's some aspect of the way</p> <p>15 that's designed or some DOE argument that the 10:40:11</p> <p>16 plaintiff would make. I would have to give it some</p> <p>17 thought.</p> <p>18 Q But you haven't given the opinion that the</p> <p>19 term processor is indefinite, have you?</p> <p>20 A In this declaration I have not. 10:40:24</p> <p>21 Q So I want to go back to a question that you</p> <p>22 didn't actually answer earlier. So my question</p> <p>23 earlier was if the Court applies the No. 1</p> <p>24 construction from the Microsoft Computer Dictionary</p> <p>25 to circuit, any path that can carry electrical 10:40:48</p>
<p style="text-align: right;">Page 59</p> <p>1 Is that fair?</p> <p>2 A It would depend. Maybe there's an expert who</p> <p>3 would say, "Well, a circuit could be any path that</p> <p>4 can carry electrical current."</p> <p>5 So I'm going to draw a box around some of the 10:38:02</p> <p>6 processor and another box around another part of the</p> <p>7 processor and say that those are separate circuits.</p> <p>8 Q But the claim requires two separate</p> <p>9 processors, right, Claim 18?</p> <p>10 A Claim 18 requires a data networking engine 10:38:23</p> <p>11 implemented in the first circuit. That includes at</p> <p>12 least one processor and a cable modem engine</p> <p>13 implemented in a second circuit that includes at</p> <p>14 least one processor.</p> <p>15 That's what the claim language says. So with 10:38:47</p> <p>16 respect to drawing boxes around circuits or</p> <p>17 transistors or pads or boards, a person of skill in</p> <p>18 the art wouldn't know how to implement a system that</p> <p>19 wouldn't meet the requirement.</p> <p>20 Now, your focus was also on the requirement 10:39:07</p> <p>21 of whether or not you had a processor in the circuit</p> <p>22 or not. But the ambiguity is with respect to</p> <p>23 whether or not you had two circuits that were</p> <p>24 separate from each other.</p> <p>25 You might be able to do something else to not 10:39:21</p>	<p style="text-align: right;">Page 61</p> <p>1 current, is your opinion that you then would not be</p> <p>2 able to apply this -- the claims to an accused</p> <p>3 product and determine whether there is infringement</p> <p>4 or not?</p> <p>5 A I believe I did answer that question. And my 10:41:03</p> <p>6 question -- my answer was with respect to whether or</p> <p>7 not you could determine infringement, I'm sure</p> <p>8 someone could draw boxes however they wanted and</p> <p>9 start checking off limitations.</p> <p>10 But then I continued to say, the question of 10:41:22</p> <p>11 indefiniteness is not with respect to whether or not</p> <p>12 you can't find an example of a system that would fit</p> <p>13 within the scope of the claims.</p> <p>14 The question is with respect to whether or</p> <p>15 not a person of skill in the art could determine the 10:41:40</p> <p>16 scope of the claims with reasonable certainty.</p> <p>17 And so it's not an infringement analysis that</p> <p>18 determines definiteness. It's whether a person of</p> <p>19 skill in the art would understand the scope of the</p> <p>20 claims. 10:41:57</p> <p>21 Q Well, if the Court construed circuit in the</p> <p>22 claims to mean that second definition under the</p> <p>23 Microsoft Computer Dictionary, so if a circuit means</p> <p>24 a combination of electrical components</p> <p>25 interconnected to perform a particular task, are you 10:42:16</p>

<p style="text-align: right;">Page 62</p> <p>1 saying that the claims would be indefinite and you 2 would not be able to determine whether there's 3 infringement? 4 A So at first observation that's not all of the 5 second definition. 10:42:33 6 MR. BENYACAR: I was on mute when I was 7 trying to object. I apologize. That was the basis 8 for my objection. 9 Go ahead. 10 THE DEPONENT: So there's that observation. 10:42:42 11 The second is, my answers would parallel the 12 same kind of answers that I gave if the Court 13 adopted definition 1. 14 And to briefly summarize those, the question 15 of indefiniteness is not with respect to whether or 10:43:05 16 not you can find an example of a system that would 17 be within scope of the claims. 18 The question of definiteness would be with 19 respect to determining what the scope of the claims 20 are to a person of skill in the art without 10:43:21 21 reasonable uncertainty. 22 BY MS. ALLOR: 23 Q So you would find the claim to be indefinite 24 if the Court adopted either of those definitions in 25 the Microsoft Computer Dictionary and you would not 10:43:43</p>	<p style="text-align: right;">Page 64</p> <p>1 formed by the cable modem are 2 completely partitioned from the home 3 networking function performed by the 4 data networking engine." 5 Do you see that? 10:45:36 6 A Yes. 7 Q So what does it mean to be completely 8 partitioned? 9 A I don't think there's a clear understanding 10 as to what that would mean in the context of this 10:45:48 11 claim, and in light of the intrinsic record. 12 Q Did you consider any dictionary definitions 13 of partitioned? 14 A I don't recall that I did. To the extent I 15 did, they would be included in the declaration. 10:46:09 16 The question of indefiniteness doesn't 17 revolve what the -- the definition of partitioned 18 is. 19 Q Do you have an understanding of what the 20 definition of partitioned is? 10:46:25 21 A Partitioned, I don't have some dictionary 22 definition I can give you to off the top of my head. 23 I think partitioned means partitioned. 24 Q So what does it mean to you as a POSITA? 25 A Again, I don't have a dictionary definition 10:46:45</p>
<p style="text-align: right;">Page 63</p> <p>1 be able to determine the scope of the claim. 2 Is that fair? 3 A Right. 4 Regardless of which definition for circuit a 5 person of skill in the art would use, there would 10:44:04 6 still be unreasonable certainty -- or there would be 7 no reasonable certainty with respect to what the 8 scope of the claims would be. 9 Q And so if either of those definitions get 10 adopted, it's your opinion that you couldn't do an 10:44:20 11 infringement analysis because the claims would be 12 indefinite; is that fair? 13 A No. That's not what my opinion was. 14 Q What does it mean for two circuits to be 15 separate? 10:44:53 16 A I -- I don't think there is a clear 17 distinction or understanding as to what they would 18 need to be in order for them to be separate. 19 That -- that's part of the problem that's 20 illustrated in the prosecution history. 10:45:08 21 Q And if we look at the -- the claim language 22 of 18, it says (as read): 23 "A data bus that connects the data 24 networking engine to the cable modem 25 engine where the cable modem functions 10:45:26</p>	<p style="text-align: right;">Page 65</p> <p>1 off the top of my head to give you. Whatever plain 2 and ordinary meaning for partitioned would be. 3 Q So I'm introducing Exhibit 4. 4 MR. BENYACAR: How do I get access to the 5 exhibits? Did I log on the wrong way? 10:47:10 6 MS. ALLOR: Did you -- can we go off the 7 record for a minute? 8 MR. BENYACAR: Sure. 9 THE VIDEOGRAPHER: Going off record at 10 10:47 a.m. 10:47:23 11 (Recess.) 12 THE VIDEOGRAPHER: On the record at 13 10:49 a.m. 14 (Exhibit 4 was marked for 15 identification and is attached 10:49:32 16 hereto.) 17 BY MS. ALLOR: 18 Q So, Dr. Almeroth, I just introduced as 19 Exhibit 4 some excerpts from a Microsoft Computer 20 Dictionary, 3rd Edition. 10:49:42 21 If you look at Page 3 of the PDF, it shows 22 the copyright date of 1997. 23 A I see that on the page. 24 Q So if we go to the fourth page of the PDF, 25 it's Page 90 of the dictionary, you'll see a 10:49:59</p>

17 (Pages 62 - 65)

<p style="text-align: right;">Page 66</p> <p>1 definition of circuit there.</p> <p>2 Do you see that?</p> <p>3 A I see that.</p> <p>4 Q And this is the same definition that was</p> <p>5 included in the Microsoft dictionary that you 10:50:10</p> <p>6 included as your exhibit; is that fair?</p> <p>7 A It does look to be the same.</p> <p>8 Q Okay.</p> <p>9 I don't want to look at that. I want to</p> <p>10 actually go to the next page. I just want you to 10:50:20</p> <p>11 know that I didn't have access to the one that you</p> <p>12 had, so I have a 1997 version.</p> <p>13 A Okay.</p> <p>14 Q If we go to the last page, 355.</p> <p>15 A Okay. 10:50:39</p> <p>16 Q So there's a definition of partition there</p> <p>17 and it says (as read):</p> <p>18 "A logically distinct portion of</p> <p>19 memory or a storage device that</p> <p>20 functions as though it were a 10:50:47</p> <p>21 physically separate unit."</p> <p>22 Do you see that?</p> <p>23 A I see that.</p> <p>24 Q Is that a fair definition of partition?</p> <p>25 A In this context of the '775 patent, I don't 10:51:00</p>	<p style="text-align: right;">Page 68</p> <p>1 Q So in the context of this definition of</p> <p>2 partition and the discussion that you just had right</p> <p>3 before this question, would that be only applicable</p> <p>4 to a hard drive having, you know, two separate</p> <p>5 logical drives within that single hard drive? 10:53:05</p> <p>6 A I don't understand the question.</p> <p>7 Q Well, so you said that this definition is not</p> <p>8 referencing being completely partitioned from the</p> <p>9 home networking function; the cable modem engine</p> <p>10 being completely partitioned. 10:53:24</p> <p>11 So -- so what is this definition referring</p> <p>12 to? Is it referring to a single piece of hardware</p> <p>13 having only function partitions?</p> <p>14 A Sorry. When you say "this definition," I</p> <p>15 don't understand if you are referring to Exhibit 4 10:53:43</p> <p>16 or something in Claim 18.</p> <p>17 Q I'm -- I'm referring to the definition of</p> <p>18 partition in Exhibit 4 that's the dictionary.</p> <p>19 So I asked you if that was consistent with</p> <p>20 the '775 patent's use of partitioning. 10:53:58</p> <p>21 You told me no; is that fair?</p> <p>22 A I am not sure how to judge consistency. They</p> <p>23 are talking about two different things.</p> <p>24 I -- I think they are talking about two</p> <p>25 different things. I don't think that the definition 10:54:13</p>
<p style="text-align: right;">Page 67</p> <p>1 think it is.</p> <p>2 Q And why not?</p> <p>3 A The definition of partition from the</p> <p>4 Microsoft dictionary looks to be in the context of a</p> <p>5 storage device or -- or memory. 10:51:18</p> <p>6 So you create a partition on your hard drive,</p> <p>7 like a C drive and a D drive, and so it's -- it's a</p> <p>8 portion of memory or storage that's being divided</p> <p>9 here. The -- the completely partitioned in Claim 18</p> <p>10 and 19 is referencing cable modem functions 10:51:44</p> <p>11 performed by the cable modem engine completely</p> <p>12 partitioned from the home networking functions.</p> <p>13 So that definition of partition of how you</p> <p>14 are dividing up memory I don't think would inform a</p> <p>15 person of skill in the art as to how you're 10:52:03</p> <p>16 partitioning functions of engines.</p> <p>17 Q Are you saying this definition is not</p> <p>18 consistent with what a POSITA would understand at</p> <p>19 the time of invention in 2003?</p> <p>20 A I -- I don't think this definition would help 10:52:26</p> <p>21 a person of skill in the art understand what</p> <p>22 Claim 18 and 19 meant with respect to completely</p> <p>23 partitioned, especially in the context of the</p> <p>24 intrinsic record that's present as it relates to</p> <p>25 this portion of Claim 18 and 19. 10:52:41</p>	<p style="text-align: right;">Page 69</p> <p>1 from Exhibit 4 is relevant or would inform a person</p> <p>2 of skill in the art as to how the term completely</p> <p>3 partitioned was used in the context of Claim 18 and</p> <p>4 19, especially in the context of the intrinsic</p> <p>5 record of the '775 patent. 10:54:36</p> <p>6 Q If we put the -- the claim language aside and</p> <p>7 patent aside, and we look at just the definition</p> <p>8 from the 1997 dictionary, it says (as read):</p> <p>9 "A logically distinct portion of</p> <p>10 memory or storage device that 10:54:48</p> <p>11 functions as though it were a</p> <p>12 physically separate unit."</p> <p>13 Is it your position that that definition only</p> <p>14 applies to logical partitioning and not physical</p> <p>15 partitioning? 10:55:00</p> <p>16 A I am not sure how to answer that question. I</p> <p>17 guess maybe the answer is it depends.</p> <p>18 Q Can something be partitioned based on this</p> <p>19 definition in the Microsoft dictionary, can it be</p> <p>20 both logically distinct and not physically separate? 10:55:30</p> <p>21 A Again, I'm not sure what that question is</p> <p>22 really asking or what it means.</p> <p>23 Q Do you understand what this definition means?</p> <p>24 A I do.</p> <p>25 Q So my question is: When you're applying this 10:55:53</p>

<p style="text-align: right;">Page 70</p> <p>1 definition in the real world in the time of a</p> <p>2 POSITA, would you understand that only to be</p> <p>3 applicable to partitioning logical hard drives or</p> <p>4 logical functions and not physical hard drive?</p> <p>5 The partitioning will be between the logical 10:56:17</p> <p>6 step and not the physical hard drive.</p> <p>7 A I don't understand the question. You have</p> <p>8 used terms like logical hard drive, you've -- you've</p> <p>9 mixed and matched hard drive with functions. I'm</p> <p>10 not sure what a logical function would be or how a 10:56:36</p> <p>11 function would be relevant to the definition.</p> <p>12 Your question just doesn't really make any</p> <p>13 sense. I'm sorry.</p> <p>14 Q Could you partition a single hard drive?</p> <p>15 A I guess there's two parts of the question. 10:57:11</p> <p>16 Could you and would that use of the term make sense</p> <p>17 in that context.</p> <p>18 The one example that comes to mind is where</p> <p>19 you have a hard drive in a PC and you can partition</p> <p>20 it so that there's a C drive and a D drive. That's 10:57:25</p> <p>21 a typical way in which I would expect that term to</p> <p>22 be used. Maybe there's other contexts in which it</p> <p>23 could be used.</p> <p>24 Q And so that is partitioning portions of the</p> <p>25 hard drive into, as you said, a C drive and a D 10:57:47</p>	<p style="text-align: right;">Page 72</p> <p>1 and oranges.</p> <p>2 I guess in this case partition is referencing</p> <p>3 distinct portions of memory whereas Claim 18 and 19</p> <p>4 are referencing complete partitioning of cable modem</p> <p>5 engines functions and home networking functions. 10:59:50</p> <p>6 The cable modem engine and the data networking</p> <p>7 engine.</p> <p>8 Q So is it your opinion that in your hard drive</p> <p>9 example drive C and drive D could not share</p> <p>10 connecting circuitry data paths or memory devices 11:00:19</p> <p>11 and still be partitioned?</p> <p>12 A I am not even sure how to apply claim</p> <p>13 language to that particular scenario. Again, I</p> <p>14 think because the terms are talking about different</p> <p>15 things, it's -- it's again kind of apples and 11:00:37</p> <p>16 oranges. I think also in the context of the</p> <p>17 '775 patent there's prosecution histories, part of</p> <p>18 the intrinsic record that help explain what the</p> <p>19 applicant considered or thought or stated with</p> <p>20 respect to completely partitioned. 11:00:59</p> <p>21 Q Can two circuits be separate but still share</p> <p>22 circuitry, data path, or memory devices?</p> <p>23 A Can you repeat the question?</p> <p>24 Q So can two circuits be separate but still</p> <p>25 share connecting circuitry, data path, or memory 11:01:43</p>
<p style="text-align: right;">Page 71</p> <p>1 drive. That's the function being partitioned,</p> <p>2 right?</p> <p>3 A No. I disagree with your characterization.</p> <p>4 Q So that's a physical partition?</p> <p>5 A I disagree with that characterization. 10:58:03</p> <p>6 Q So what kind of partitioning is it?</p> <p>7 A I mean, I'm not sure what types of partitions</p> <p>8 there could be. I mean, it's -- the example I have</p> <p>9 provided is it's a partition. I'm not sure what</p> <p>10 adjective I would use to modify partition in that 10:58:28</p> <p>11 sense.</p> <p>12 Q Well, you said that this definition of</p> <p>13 partition is not the same as what's being used in</p> <p>14 the '775 patent. So I'm trying to understand what</p> <p>15 this definition means. 10:58:43</p> <p>16 A The definition means what it says it means.</p> <p>17 I can -- I gave you one example and I'm not sure</p> <p>18 what else you're asking at this point.</p> <p>19 Q So how is the use of partition in the</p> <p>20 '775 patent inconsistent with this definition in the 10:59:03</p> <p>21 Microsoft dictionary?</p> <p>22 A It's a hard question to answer. I'm not</p> <p>23 sure, you know, if you're comparing apples and</p> <p>24 oranges how or -- how is the comparison</p> <p>25 inconsistent. I mean size, shape, color for apples 10:59:21</p>	<p style="text-align: right;">Page 73</p> <p>1 devices?</p> <p>2 A I would have to give some thought to that</p> <p>3 hypothetical. I mean, you're -- you're using the</p> <p>4 term "separate," and then with respect to what</p> <p>5 they're sharing and you're not really asking in the 11:02:09</p> <p>6 context if Claim 18 or considering the intrinsic</p> <p>7 record.</p> <p>8 So I'm a little uncertain as to what the</p> <p>9 context of the question is and how to evaluate the</p> <p>10 requirements of your question versus kind of the 11:02:26</p> <p>11 incomplete hypothetical.</p> <p>12 Q What does it mean for two circuits to be</p> <p>13 separate?</p> <p>14 A I think that's part of the problem with the</p> <p>15 indefiniteness of the claim. It's not clear what 11:02:46</p> <p>16 the scope of the claim is for the required</p> <p>17 separation and for the functions to be partitioned,</p> <p>18 especially given the intrinsic record.</p> <p>19 Q So you don't know what it means for two</p> <p>20 circuits to be separate? 11:03:10</p> <p>21 A Not in the context of how that term is used</p> <p>22 in Claim 18 and 19, given what the applicant said</p> <p>23 during prosecution. It's not clear to me with any</p> <p>24 reasonable certainty as to what that term means or</p> <p>25 what the scope of the claim would be when it uses 11:03:27</p>

<p style="text-align: right;">Page 74</p> <p>1 that term.</p> <p>2 Q Are you familiar with SOC's that have various</p> <p>3 circuits on a single chip?</p> <p>4 A Yes.</p> <p>5 Q Would you consider the components of the SOC 11:03:48</p> <p>6 to have separate circuits?</p> <p>7 A It would be the same kind of answer.</p> <p>8 Applying separate as it's used in the context</p> <p>9 of Claim 18 and in light of the prosecution history,</p> <p>10 I don't think I have the ability to answer that 11:04:11</p> <p>11 question one way or another.</p> <p>12 Q So as a POSITA, understanding what a SOC is,</p> <p>13 if there was a single chip with various circuits on</p> <p>14 it, would you say that all those circuits are</p> <p>15 separate? 11:04:30</p> <p>16 A Same answer.</p> <p>17 Q Can those circuits have separate functions</p> <p>18 even though they are connected on the single chip?</p> <p>19 A Can they have separate functions?</p> <p>20 It seems like you are using that term 11:04:54</p> <p>21 different than how it's used in the context of the</p> <p>22 requirements of Claim 18.</p> <p>23 I think in an unbounded hypothetical</p> <p>24 certainly circuits on a chip can have separate</p> <p>25 functions. I mean it -- again, it depends on if 11:05:08</p>	<p style="text-align: right;">Page 76</p> <p>1 test for separateness in your hypothetical.</p> <p>2 Q Well, wouldn't you -- as a POSITA, wouldn't</p> <p>3 you be familiar with seeing circuitry depicted as a</p> <p>4 series of separate blocks on a block diagram?</p> <p>5 A It would be the same answer. 11:07:06</p> <p>6 You're -- you're not giving me a definition</p> <p>7 of what separateness requires or allows for, so I</p> <p>8 can't say whether or not circuits, chips are</p> <p>9 separate on an SOC or not.</p> <p>10 And that's, again, all divorced from any 11:07:26</p> <p>11 particular meaning or understanding in the context</p> <p>12 of Claim 18 and 19 of the '775 patent.</p> <p>13 Q So if we look at Claim 18 of the '775 patent,</p> <p>14 is it your position that the cable modem engine and</p> <p>15 the data networking engine can't share any 11:07:54</p> <p>16 connecting circuitry or data path?</p> <p>17 A It is not clear what the scope of the claims</p> <p>18 allows for given what the applicant said as part of</p> <p>19 the prosecution.</p> <p>20 There was a pretty clear example in the prior 11:08:23</p> <p>21 art where there were components that were shared</p> <p>22 between the two and there's examples identified in</p> <p>23 Paragraph 61 of things like a memory controller and</p> <p>24 a bus that seemed to be shared between the two</p> <p>25 processors that are used as a basis for 11:09:07</p>
<p style="text-align: right;">Page 75</p> <p>1 you're trying to apply the language of Claims 18 and</p> <p>2 19 to that hypothetical or not.</p> <p>3 Q Well, I was not applying it to the claim</p> <p>4 terms. I was just asking about a SOC that is a</p> <p>5 single chip and that has various circuits on it. 11:05:35</p> <p>6 Would those be considered separate?</p> <p>7 A You would have to tell me what the test for</p> <p>8 separateness is.</p> <p>9 Q What's your understanding as a POSITA of the</p> <p>10 term "separate" with respect to an SOC that has 11:05:58</p> <p>11 various circuits on it?</p> <p>12 A I think the understanding of a POSITA would</p> <p>13 be it's -- it's not a term with a specific enough</p> <p>14 definition that I can answer your question yes or</p> <p>15 no. 11:06:12</p> <p>16 And in one context maybe it is separate and</p> <p>17 another context maybe it is not separate. It</p> <p>18 depends on -- on what specific definition of</p> <p>19 separate you want me to apply in evaluating whether</p> <p>20 or not your hypothetical has separate functions or 11:06:32</p> <p>21 circuits.</p> <p>22 Q Wouldn't a POSITA have been familiar with an</p> <p>23 SOC?</p> <p>24 A Yes, but familiarity with an SOC doesn't</p> <p>25 provide the context for how you want me to apply the 11:06:47</p>	<p style="text-align: right;">Page 77</p> <p>1 distinguishing Brooks and saying that it -- it</p> <p>2 shared circuitry and therefore were not separate</p> <p>3 circuits.</p> <p>4 Q So I don't think you answered my question.</p> <p>5 My question was: Does Claim 18 of the 11:09:30</p> <p>6 '775 patent, is it your position that the cable</p> <p>7 modem engine and the data networking engine can't</p> <p>8 share any circuitry or data -- any connecting</p> <p>9 circuitry or data path?</p> <p>10 MR. BENYACAR: Objection; asked and answered. 11:09:45</p> <p>11 THE DEPONENT: I absolutely answered it, so I</p> <p>12 stand by the answer I just gave on the record.</p> <p>13 BY MS. ALLOR:</p> <p>14 Q How do they communicate with each other?</p> <p>15 A I don't understand the context of the 11:09:57</p> <p>16 question. What are they and what the</p> <p>17 hypothetical is.</p> <p>18 Q How does the cable modem engine in Claim 18</p> <p>19 communicate with the data networking engine?</p> <p>20 A I don't understand the question. 11:10:12</p> <p>21 Are you asking about a system that would</p> <p>22 implement Claim 18? I mean, because with respect</p> <p>23 to -- I mean, it's a long limitation. I'm -- I'm</p> <p>24 trying to see where there's a specific requirement</p> <p>25 in Claim 18 that the cable modem engine and the data 11:10:37</p>

<p style="text-align: right;">Page 78</p> <p>1 network engine communicate with each other.</p> <p>2 Q So could you have a functioning cable modem</p> <p>3 system that didn't have communication between the</p> <p>4 data networking engine and the cable modem engine?</p> <p>5 A I would have to give that some thought. I'm 11:11:04</p> <p>6 not -- I'd have to think about how you could</p> <p>7 implement a system under those constraints and if it</p> <p>8 would -- would operate.</p> <p>9 Q So you don't know whether in a functioning</p> <p>10 cable modem, you know, one of -- maybe the accused 11:11:23</p> <p>11 products, whether they need to communicate between</p> <p>12 the data networking engine and the cable model</p> <p>13 engine?</p> <p>14 MR. BENYACAR: Object to the form.</p> <p>15 THE DEPONENT: So your question about how a 11:11:37</p> <p>16 system would work if they didn't communicate versus</p> <p>17 a description of an example of a system where they</p> <p>18 do communicate seems to be two different things.</p> <p>19 So I -- I don't understand your -- your last</p> <p>20 question being asked in the context of the previous 11:11:54</p> <p>21 question. So maybe you could restate it so that I</p> <p>22 understand it.</p> <p>23 BY MS. ALLOR:</p> <p>24 Q There were two separate questions, so I --</p> <p>25 I'll ask each of them again. 11:12:06</p>	<p style="text-align: right;">Page 80</p> <p>1 Q It you could turn to Paragraph 74 of your</p> <p>2 declaration.</p> <p>3 And above that paragraph there is an</p> <p>4 annotated copy of Figure 1 from the '775 patent?</p> <p>5 Do you see that? 11:14:08</p> <p>6 A Yes.</p> <p>7 Q And you put a purple box around the cable</p> <p>8 modem engine 110; is that correct?</p> <p>9 A Yes.</p> <p>10 Q So why do you say the specification doesn't 11:14:21</p> <p>11 explain what this box is?</p> <p>12 A Why do I say that? I say that in the context</p> <p>13 of going back to understanding what a circuit is and</p> <p>14 the point that there's Box 110 that's described as</p> <p>15 the cable modem engine but there's no description or 11:14:48</p> <p>16 explanation as to whether that box is a circuit</p> <p>17 board on which all of the components of the CME are</p> <p>18 placed or if it means something else, kind of</p> <p>19 consistent with the rest of what Paragraph 74 says.</p> <p>20 Q So your issue with this figure and with the 11:15:08</p> <p>21 specification is that it doesn't identify how the</p> <p>22 CME is physically implemented?</p> <p>23 A I think that is an inaccurate</p> <p>24 characterization of what my indefiniteness opinions</p> <p>25 are. 11:15:35</p>
<p style="text-align: right;">Page 79</p> <p>1 So my first question was: If it's your</p> <p>2 position that the cable model engine and the data</p> <p>3 networking engine in Claim 18 cannot share any</p> <p>4 connecting circuitry or data path, how would they</p> <p>5 communicate with one another? 11:12:22</p> <p>6 A Okay. So that question presumes that I've</p> <p>7 offered the opinion that they can't share anything.</p> <p>8 What I have said is based on what the</p> <p>9 applicant said during the prosecution history and</p> <p>10 the lack of disclosure in the specification, it's 11:12:45</p> <p>11 not clear how to -- what the scope of the claims is</p> <p>12 with any reasonable certainty as to how the circuits</p> <p>13 can be separate from each other, how the functions</p> <p>14 can be completely partitioned, given statements that</p> <p>15 the applicant made during prosecution. That leads 11:13:02</p> <p>16 to the indefiniteness.</p> <p>17 And so with respect to asking me to assume</p> <p>18 that to be the case, I can then answer the rest of</p> <p>19 the question which is how you would implement a</p> <p>20 system if that were to be the assumption and the 11:13:27</p> <p>21 hypothetical, and that's what I answered to you</p> <p>22 previously as I haven't given thought to what the</p> <p>23 structure of a hypothetical system would look like</p> <p>24 sufficient to meet the assumptions in your question</p> <p>25 about a hypothetical. 11:13:41</p>	<p style="text-align: right;">Page 81</p> <p>1 Q Well, your Paragraph 74 says the</p> <p>2 specification doesn't explain what this box is,</p> <p>3 meaning the purple box, but the purple box is</p> <p>4 clearly labeled as the cable model engine.</p> <p>5 Is it not? 11:15:50</p> <p>6 A It has that label but it doesn't inform a</p> <p>7 person of skill in the art as to what the circuit is</p> <p>8 supposed to be. And there's multiple possible</p> <p>9 meanings that I go through with respect to</p> <p>10 Paragraph 74. And then understanding Paragraph 74 11:16:07</p> <p>11 in the context of all of the other ways in which</p> <p>12 Figure 1 can be -- can have boxes drawn on it</p> <p>13 demonstrates that even if you had a definition of</p> <p>14 circuit, it doesn't tell you at what level the claim</p> <p>15 is supposed to be claiming a circuit at. 11:16:27</p> <p>16 And the point of Paragraph 74 when it says it</p> <p>17 doesn't explain what this box is, is referring to it</p> <p>18 doesn't explain how this box would inform a person</p> <p>19 of skill in the art as to what the scope of circuit</p> <p>20 would be as it's required in the claims. 11:16:48</p> <p>21 Q But you would agree that this box, the purple</p> <p>22 box around the cable modem engine 110, it includes</p> <p>23 at least one processor?</p> <p>24 MR. BENYACAR: Objection; asked and answered.</p> <p>25 THE DEPONENT: No. It includes two 11:17:07</p>

<p style="text-align: right;">Page 82</p> <p>1 processors.</p> <p>2 BY MS. ALLOR:</p> <p>3 Q Isn't two processors at least one?</p> <p>4 A Asking if this box shows at least one</p> <p>5 processor, it shows exactly two processors. So it 11:17:27</p> <p>6 doesn't show one processor or three processors.</p> <p>7 Q Does it need to show one single processor to</p> <p>8 meet the claim limitation of at least one processor?</p> <p>9 A With respect to whether or not that would be</p> <p>10 a necessary or a sufficient requirement to explain 11:17:59</p> <p>11 what the claim meant when it said one or more</p> <p>12 processors for the cable modem engine, it -- there'd</p> <p>13 have to be something.</p> <p>14 Whether it's shown in this figure or an</p> <p>15 explanation provided, the fact that the limitation 11:18:21</p> <p>16 says one or more processors creates an issue with</p> <p>17 respect to, if you only had one processor according</p> <p>18 to the claim, how you would be able to have a DOCSIS</p> <p>19 controller and a DOCSIS MAC processor on a single</p> <p>20 processor and be able to meet the requirements of 11:18:56</p> <p>21 the claim where you have -- packets are forwarded</p> <p>22 directly to the data networking engine without the</p> <p>23 involvement of the DOCSIS controller.</p> <p>24 So that's another indefiniteness problem as</p> <p>25 it relates to Claims 18 and 19. 11:19:18</p>	<p style="text-align: right;">Page 84</p> <p>1 There would be no way for them to be</p> <p>2 separate?</p> <p>3 A As to -- there are two parts of that</p> <p>4 question. Whether or not I would consider them to</p> <p>5 be separate, there's no guidance in the claim for 11:21:43</p> <p>6 whether or not they would be separate or not because</p> <p>7 there's no guidance as to what level of circuit is</p> <p>8 claimed.</p> <p>9 With respect to the second part of the</p> <p>10 question, there would be no way for them to be 11:21:56</p> <p>11 separate. It would depend on how they're</p> <p>12 implemented. It would depend on the level of</p> <p>13 separateness that was required.</p> <p>14 And that's -- that's the problem. Because</p> <p>15 the claim doesn't provide a person of skill in the 11:22:09</p> <p>16 art what the scope of the claim would be, it creates</p> <p>17 uncertainty as what that scope of the claim would be</p> <p>18 in a scenario like what you described.</p> <p>19 Q If you could look at the '775 patent,</p> <p>20 Column 4, Line 58 to 62. 11:22:34</p> <p>21 A Yes.</p> <p>22 Q So there the specifications describe a single</p> <p>23 chip; is that correct?</p> <p>24 A No.</p> <p>25 Q So you don't think it describes implementing 11:22:57</p>
<p style="text-align: right;">Page 83</p> <p>1 Q Is it your opinion that you couldn't meet the</p> <p>2 claim limitations by having two processors on the</p> <p>3 cable modem engine?</p> <p>4 A You know, I think -- I think the point is the</p> <p>5 opposite of that. The disclosed invention has two 11:19:55</p> <p>6 processors in the cable modem engine, and that's</p> <p>7 what's disclosed, the DOCSIS MAC processor and the</p> <p>8 DOCSIS controller. Having one processor creates</p> <p>9 problems in the claim for the reasons I just</p> <p>10 described. 11:20:18</p> <p>11 Q Where in the claim language is -- does it</p> <p>12 require that the first circuit and the second</p> <p>13 circuit be on separate circuit boards?</p> <p>14 MR. BENYACAR: Object to the form.</p> <p>15 THE DEPONENT: I don't think it says that's a 11:20:35</p> <p>16 requirement of the claims explicitly, but because it</p> <p>17 doesn't say what the first circuit and second</p> <p>18 circuit are or can be, there's no guidance to a</p> <p>19 person of skill in the art how they can be separate</p> <p>20 and how you can have functions that are completely 11:21:11</p> <p>21 partitioned creates the indefiniteness problem.</p> <p>22 BY MS. ALLOR:</p> <p>23 Q Are you -- are you saying that if you had two</p> <p>24 circuits on a single circuit board you wouldn't</p> <p>25 consider those to be separate? 11:21:34</p>	<p style="text-align: right;">Page 85</p> <p>1 cable modem system 100 on a single chip?</p> <p>2 A No.</p> <p>3 Q What does it describe then?</p> <p>4 A It says (as read):</p> <p>5 "A chip implementing cable 11:23:11</p> <p>6 modem system 100 will only have a</p> <p>7 small incremental hardware cost or</p> <p>8 function over standalone cable modem</p> <p>9 chips. The major cost difference</p> <p>10 relative to current chips is the 11:23:25</p> <p>11 addition of another R940-type</p> <p>12 processor to the chip."</p> <p>13 So it's describing the addition of the DNE as</p> <p>14 the additional chip, which would be the required</p> <p>15 functionality that's shown for cable modem 100, and 11:23:39</p> <p>16 then it's also describing in the context of current</p> <p>17 standalone cable modem chips, which in the context</p> <p>18 of cable modem system 100 is the ARM1 for the DOCSIS</p> <p>19 controller and ARM2 for the DOCSIS MAC processor.</p> <p>20 Q Right. 11:24:03</p> <p>21 But it says in addition to the chip, you</p> <p>22 could add another processor. So wouldn't that be</p> <p>23 referring to multiple processors on a single chip?</p> <p>24 A It -- it's referring to the cable modem</p> <p>25 system 100 which is described -- I mean, it's 11:24:33</p>

<p style="text-align: right;">Page 86</p> <p>1 referring to that embodiment, and in that embodiment 2 there are three chips -- I'm sorry, there are three 3 processors, not three chips. 4 Q But you would agree it's discussing adding a 5 processor for the DNE to the chip? 11:24:59 6 A And if it's -- it's adding another processor 7 to the two that are already there to create cable 8 modem 100. 9 Q Right. 10 And all three processors are on a single 11:25:19 11 chip, correct? 12 A With respect to the relationship between a 13 processor and a chip, it's whether it's in -- the 14 chip is an SOC or not. It doesn't really say. So 15 there isn't some description of what a chip is as it 11:25:35 16 relates to what the processors are. 17 Q Your answer earlier was it's adding another 18 processor to the two that are already there to 19 create cable modem 100. 20 Is that a fair recitation of your answer? 11:25:56 21 A Yes. 22 Q So wouldn't you agree that in that scenario 23 of what's being described here, cable modem 100 has 24 three processors on a single chip? 25 A It is using the term "chip" but not tying it 11:26:11</p>	<p style="text-align: right;">Page 88</p> <p>1 That was not -- 2 A -- would be part of the chip versus not, it 3 doesn't say. 4 Q That wasn't my question. So -- thank you. 5 So with respect to a system (indecipherable) 11:28:41 6 chip, the processors would be on that single chip; 7 is that correct? 8 A That's the -- 9 MR. BENYACAR: Object to form. 10 THE DEPONENT: That's the part you 11:28:49 11 interrupted me on. It doesn't say. 12 BY MS. ALLOR: 13 Q So you interpreted the word "chip" to not 14 mean a chip? 15 A That's not what my answer was. 11:29:07 16 Q Are you familiar with the concept of virtual 17 decoupling? 18 A In a general sense, it's something of a broad 19 term, so it again depends on the context. 20 Q Well, what does it mean to you as a POSITA? 11:29:32 21 A It depends on the context. 22 Q Well, if you look at the '775 patent, the 23 Column 3, Line 58 to 62. 24 A Okay. 25 Q It's describing the ability to virtually 11:30:05</p>
<p style="text-align: right;">Page 87</p> <p>1 specifically to how that relates to a processor or 2 any requirement for separateness. 3 Q I'm -- I'm not saying anything about the 4 separateness requirement. 5 I'm simply asking you whether a current 11:27:08 6 standalone cable modem chip has two processors and 7 this is describing adding an additional processor to 8 that chip to get to the cable modem system 100 being 9 described there. 10 A Yeah, I think the focus of Figure -- Figure 11:27:26 11 1, Box 100 is with respect to the inclusion of the 12 three processors as to what the chip is referring to 13 in that scenario. 14 That is not -- doesn't tie that chip to the 15 relationship of the three processors. 11:27:54 16 Q That wasn't my question. 17 My question was simply, this is describing a 18 possibility that this cable modem system 100 can be 19 implemented on a single chip with at least three 20 processors? 11:28:10 21 A It is saying that you would have cable modem 22 system with three processors. I would agree with 23 that. 24 With respect to what -- 25 Q Okay. 11:28:26</p>	<p style="text-align: right;">Page 89</p> <p>1 decouple the cable modem engine 100 from the data 2 networking engine 120. 3 Is that fair? 4 A Sorry. 5 Could you repeat the question. 11:30:20 6 Q I said, this portion of the specification is 7 describing virtually decoupling the data networking 8 engine 120 from the cable modem engine 110. 9 Do you see that? 10 A I do see where it says those words. 11:30:36 11 Q And what is your understanding of what that 12 would mean? 13 A I think it says in the previous sentence -- 14 because the sentence that you read says as a result 15 and then it's using virtually decoupling to 11:31:06 16 characterize the sentence that appears before. 17 So that sentence says (as read): 18 "In one implementation the entire 19 embedded portal service, PS, 20 functionality of the cable home 11:31:18 21 specification, is contained within 22 data networking engine 120 with a 23 cable home functionality being 24 completely decoupled from the packet 25 cable and DOCSIS functionality 11:31:32</p>

<p style="text-align: right;">Page 90</p> <p>1 provided by cable modem 110." 2 Q Right. 3 So the sentence after it is describing that 4 that decoupling is a virtual decoupling. 5 Do you agree with that? 11:31:46 6 A It is using the term "virtual decoupling" to 7 refer to what I just read. 8 Q And what is your understanding of virtual 9 decoupling? 10 A It's what I just read. I'll read it for you 11:31:59 11 again. 12 It says (as read): 13 "In one implementation the entire 14 embedded portal services functionality 15 of the cable home specification is 11:32:08 16 contained within data networking 17 engine 120 with a cable home 18 functionality being completely 19 decoupled from the packet table and 20 DOCSIS functionality provided by cable 11:32:19 21 modem engine 110." 22 Q Is this describing that the function of the 23 two engines, the data networking engine and the 24 cable modem engine, they are operating separately? 25 A It does not make that characterization. 11:32:38</p>	<p style="text-align: right;">Page 92</p> <p>1 Actually maybe repeat your question because it was 2 the words at the end that I think you were asking 3 whether or not that concept was conveyed or not. 4 Q So the last part of that Column 3, Lines 58 5 to 62 is describing (as read): 11:35:01 6 "As a result of the virtual 7 decoupling." 8 So my question is, the virtual decoupling, 9 isn't that describing that the functions of the 10 cable modem engine are operating separately from the 11:35:14 11 functions of the data networking engine such that 12 you can separately upgrade the software of each 13 without -- without affecting the functionality of 14 the other. 15 MR. BENYACAR: Object to the form. 11:35:31 16 THE DEPONENT: I see where it says (as read): 17 "As a result of the virtual 18 decoupling" that you've asked me about 19 a couple times what you're able to do. 20 But with respect to what you're able to do 11:35:46 21 having further implications about what that virtual 22 decoupling is describing, I don't see where -- for 23 example, it's -- it just says that the functionality 24 is being completely decoupled as opposed to any sort 25 of condition as it relates to operation. 11:36:10</p>
<p style="text-align: right;">Page 91</p> <p>1 Q So how would you be able to independently 2 upgrade software to one engine, so say the data 3 networking engine, without impacting the 4 functionality of the cable modem engine? 5 A I would have to give that question some 11:33:14 6 thought. I haven't tried to answer what the design 7 of a cable modem would look like that would 8 accomplish that functionality under those 9 constraints. 10 Q So would you be able to independently upgrade 11:33:29 11 the software of one engine if they were not 12 functioning separately? 13 A I would have to give that some thought, 14 whether or not you could implement a hypothetical 15 system under that constraint. 11:33:46 16 Q In context of this portion of the 17 specification, what is it describing? 18 A I don't understand the question. It's 19 describing exactly what it says. So I'm not sure 20 what you're asking about beyond the description 11:34:07 21 that's in the words of the sentences. 22 Q Is it describing the functions of the cable 23 modem engine as operating separately from the 24 functions of the data networking engine? 25 A I don't see where it says that. I'm sorry. 11:34:26</p>	<p style="text-align: right;">Page 93</p> <p>1 And so to your hypothetical about, well, it 2 says decoupling functions, doesn't that mean it has 3 to decouple operation in order to achieve 4 independently software upgrading, I don't think that 5 that necessarily follows from decoupling 11:36:31 6 functionality. 7 BY MS. ALLOR: 8 Q Do you understand what the term "MAC" means? 9 A Yes. You mean the acronym for medium access 10 control, yes. 11:37:06 11 Q Yes. 12 So what does MAC -- besides the acronym, what 13 does it actually mean? 14 A I think I had a definition from one of the 15 dictionaries. Let me find go find the paragraph for 11:37:21 16 you. 17 It's paragraph 46. (As read): 18 "MAC functions relate to accessing 19 shared physical transmission medium by 20 network attached devices." 11:37:29 21 Q So you rely on the dictionary definition for 22 that term? 23 A I do. To provide -- 24 Q Would a POSITA have an understanding of what 25 MAC means in the time period of the '775 patent? 11:37:47</p>

<p style="text-align: right;">Page 94</p> <p>1 A With respect to how I have described it in 2 Paragraph 46, I think a person of skill in the art 3 would understand at that level. 4 Q Why did you choose the dictionary definition 5 for MAC that you included? 11:38:17 6 A Because I thought it was a fair description 7 of how I describe MAC functionality. 8 Q I'm introducing as Exhibit 5 -- I'm 9 introducing Exhibit 5 for you, and this is Webster's 10 New World Computer Dictionary 10th Edition. I 11:39:05 11 believe the date on it is 2003. 12 (Exhibit 5 was marked for 13 identification and is attached 14 hereto.) 15 BY MS. ALLOR: 11:39:11 16 Q There is -- are you able to see that exhibit? 17 A Yes, I downloaded. I have it open. 18 Q Okay. 19 If we turn -- 20 MR. BENYACAR: Wait. I haven't. Hold on. 11:39:19 21 I'm trying to get it. I apologize. 22 Okay. 23 Sorry, go ahead. 24 BY MS. ALLOR: 25 Q So here is a definition on Page 4 for the 11:39:33</p>	<p style="text-align: right;">Page 96</p> <p>1 and the one I provided to you? 2 A I don't think they would be able to. 3 Q So a POSITA wouldn't know how to implement 4 the functions described under MAC with a processor? 5 A No. That's not what my opinion is. The 11:42:02 6 challenge in the '775 patent is it has a MAC 7 processor and a DOCSIS controller and it's not clear 8 how to divide functionality between those two 9 processors. 10 Your question kind of ignores the required 11:42:27 11 distinction of a DOCSIS MAC processor and a DOCSIS 12 controller in the invention and in the claims. 13 Q And my question was not tied to the DOCSIS 14 MAC -- MAC processor or the DOCSIS controller. It 15 was simply asking you about a MAC processor. 11:42:52 16 Would a POSITA understand what a MAC 17 processor is? 18 A That's a term in the claims. And as I said 19 and as it says in Paragraph 45, a DOCSIS MAC 20 processor doesn't have a plain and ordinary meaning. 11:43:16 21 So it's not clear what functions a DOCSIS MAC 22 processor would have to perform especially in the 23 context of understanding it versus a DOCSIS 24 controller. 25 Q So if a processor was implementing the MAC 11:43:37</p>
<p style="text-align: right;">Page 95</p> <p>1 media access control, MAC. 2 Do you see that? 3 A Yes. 4 Q Is that acronym, media access control, is 5 that equivalent to the medium access control map you 11:39:48 6 included in your appendix? 7 A Generally it is the same. 8 Q So is that a fair definition for MAC? 9 A Let me look. The second sentence (as read): 10 "A protocol is needed to prevent 11:40:35 11 data collisions which occur when two 12 work stations begin broadcasting 13 simultaneously." 14 Whether or not that function needs to be 15 present or not depends on the protocol. 11:40:48 16 Q Would a POSITA in the context of the 17 '775 patent have an understanding of what a MAC 18 processor is? 19 A No. 20 Q Why not? 11:41:17 21 A It's not a term of art, so it's unclear what 22 functions a MAC processor would have to perform. 23 Q So how would a POSITA determine whether a 24 processor was able to perform the MAC functions 25 described in these two definitions, your definition 11:41:39</p>	<p style="text-align: right;">Page 97</p> <p>1 functions, would a -- would it be reasonable for a 2 POSITA to refer to that as a MAC processor? 3 A If a POSITA wanted to define a MAC processor 4 that way, then they could say that's the definition 5 that I'm using for a MAC processor. 11:44:12 6 Q So if you saw the term "MAC processor," would 7 you understand that to be a processor that is 8 implementing MAC functions? 9 A That's really just reordering the words of 10 the terms. So it doesn't tell me what it is or what 11:44:46 11 it does, and that level of specificity is required 12 to understand what the scope of the claims are. 13 Q Will you agree there can be different types 14 of processors that implement MAC functions for 15 things such as Ethernet or Wi-Fi? 11:45:21 16 A Certainly theoretically you can have 17 different processors implement functionality 18 associated with one or more different kinds of data 19 link layer protocols. 20 Q And you can have one processor that 11:45:49 21 implements MAC or Ethernet, and you can have one 22 processor that implements MAC or Wi-Fi; correct? 23 A So then that characterization becomes vague 24 and it's that vagueness that becomes an issue when 25 you try and understand how those terms are used in 11:46:17</p>

25 (Pages 94 - 97)

<p style="text-align: right;">Page 98</p> <p>1 the context of the '775 patent.</p> <p>2 So designing a hypothetical system or</p> <p>3 processor and saying, this is a processor that</p> <p>4 implements the functionality required to communicate</p> <p>5 via Ethernet, you're essentially saying what that 11:46:32</p> <p>6 Ethernet processor is or does.</p> <p>7 The problem in the patent becomes in</p> <p>8 understanding the difference between a DOCSIS</p> <p>9 controller and a DOCSIS MAC processor.</p> <p>10 Q Do you understand what a controller is? 11:46:55</p> <p>11 A It's one of those terms that depends on what</p> <p>12 the context is as to what its specific meaning is.</p> <p>13 So it depends on the context.</p> <p>14 Q So you don't know what a controller is?</p> <p>15 MR. BENYACAR: Object to the form. 11:47:16</p> <p>16 THE DEPONENT: That's not what I said.</p> <p>17 BY MS. ALLOR:</p> <p>18 Q Well, you didn't answer my question of asking</p> <p>19 you what a controller is?</p> <p>20 A I believe I did. 11:47:25</p> <p>21 Q You said it depends on context. So can you</p> <p>22 give me your understanding based on the '775 patent?</p> <p>23 A Sure.</p> <p>24 The '775 patent doesn't say what a DOCSIS</p> <p>25 controller is. It identifies some exemplary 11:47:43</p>	<p style="text-align: right;">Page 100</p> <p>1 together a cable modem system with a controller.</p> <p>2 What would you understand that controller to</p> <p>3 be?</p> <p>4 A I would need clarification as to what kind of</p> <p>5 controller you're asking about. 11:49:40</p> <p>6 Q What kind of controllers are out there?</p> <p>7 A There's all sorts of controllers. I mean, it</p> <p>8 depends, again, on the context. Depends on what</p> <p>9 functionality you would define for a controller.</p> <p>10 There isn't some dictionary definition of a 11:50:05</p> <p>11 controller for -- that applies in all contexts as it</p> <p>12 relates to what particular functionality is</p> <p>13 associated with that controller or not.</p> <p>14 And, in fact, if you look at the</p> <p>15 specification of the '775 patent, it describes an 11:50:27</p> <p>16 open-ended set of functions for the DOCSIS</p> <p>17 controller that overlap with functions that are</p> <p>18 described for the DOCSIS MAC processor which -- that</p> <p>19 creates the issue.</p> <p>20 Q Would you agree with me that a controller is 11:50:44</p> <p>21 a device on which other devices rely for access to a</p> <p>22 computer subsystem?</p> <p>23 A That seems like a pretty high-level</p> <p>24 engineering definition. It probably can apply in at</p> <p>25 least some scenarios as to what a controller is. 11:51:24</p>
<p style="text-align: right;">Page 99</p> <p>1 functions but doesn't provide any guidance for</p> <p>2 understanding four functions related to DOCSIS,</p> <p>3 whether it's a DOCSIS controller function or a</p> <p>4 DOCSIS MAC processor function.</p> <p>5 In fact, it seems to suggest overlapping 11:48:07</p> <p>6 functions across those two processors.</p> <p>7 Q So you added in DOCSIS controller. I was</p> <p>8 asking you: What is your understanding of a</p> <p>9 controller?</p> <p>10 A Sorry. I thought you asked -- last question 11:48:23</p> <p>11 asked in the context of the '775 patent.</p> <p>12 Back to your original question as to what a</p> <p>13 controller is, it's going to be the same answer I</p> <p>14 gave you before. It depends on what the context of</p> <p>15 that term is. 11:48:37</p> <p>16 Q So is it your opinion that the only</p> <p>17 controller discussed or described in the</p> <p>18 specification of the '775 patent is a DOCSIS</p> <p>19 controller?</p> <p>20 A It's my opinion that there's only the DOCSIS 11:48:51</p> <p>21 controller Box 116 that uses that term in the</p> <p>22 context of a label in Figure 1. And I'm not sure if</p> <p>23 it the specification calls anything else a</p> <p>24 controller.</p> <p>25 Q So as a POSITA, you are being asked to put 11:49:11</p>	<p style="text-align: right;">Page 101</p> <p>1 Q So taking that definition of controller,</p> <p>2 would you agree that a controller is not necessarily</p> <p>3 a processor?</p> <p>4 A I think that question needs to be clearly</p> <p>5 articulated. Well, my understanding of that 11:51:56</p> <p>6 question is you're not asking about a controller</p> <p>7 that's in any way related to the '775 patent.</p> <p>8 And then without that context, it's kind of a</p> <p>9 vague hypothetical. I'd have to give it some</p> <p>10 thought, probably depends on what you would consider 11:52:16</p> <p>11 a processor as opposed to an embedded circuit. It</p> <p>12 would -- depends.</p> <p>13 Q As a POSITA you don't understand whether a</p> <p>14 controller can be a processor?</p> <p>15 A Your question is too vague to answer it one 11:52:48</p> <p>16 way or another. I could answer it if you gave me</p> <p>17 more information, but as stated it is too vague to</p> <p>18 answer.</p> <p>19 Q In context of claims of the '775 patent in</p> <p>20 your opinion that you have given, is it fair to say 11:53:10</p> <p>21 that it's your opinion that the DOCSIS MAC processor</p> <p>22 and the DOCSIS controller has to be implemented on</p> <p>23 separate processors?</p> <p>24 A So two things. That's how the invention is</p> <p>25 described at least in the specification. 11:53:47</p>

<p style="text-align: right;">Page 102</p> <p>1 With respect to the requirements of the</p> <p>2 claim, it's not clear how something different than</p> <p>3 that, for example, a DOCSIS controller and a DOCSIS</p> <p>4 MAC processor implemented on the same processor,</p> <p>5 could meet the other requirements of Claims 18 and 11:54:16</p> <p>6 19, for example, without the involvement portion of</p> <p>7 the claim.</p> <p>8 Q So it's your opinion that Claim 18 requires</p> <p>9 that the DOCSIS controller and the DOCSIS MAC</p> <p>10 processor be implemented on separate processors? 11:54:44</p> <p>11 A That's not what I just answered. That's not</p> <p>12 my opinion.</p> <p>13 Q Well, I asked you if they could be</p> <p>14 implemented on the same processor, and I believe</p> <p>15 your answer was the specification and the claims say 11:55:09</p> <p>16 they have to be on separate processors, right?</p> <p>17 A No. That was not my full answer.</p> <p>18 Q Again, I'm asking: Can they be implemented</p> <p>19 on the same processors?</p> <p>20 A Then it would be the answer I gave you the 11:55:40</p> <p>21 first time you asked that question.</p> <p>22 Q If you could turn to Column 2 of the</p> <p>23 '775 patent, Lines 55 to 59 -- I'm sorry -- 58. It</p> <p>24 says (as read):</p> <p>25 "Cable modem engine 110 implements 11:56:05</p>	<p style="text-align: right;">Page 104</p> <p>1 processors for each of block 114 and block 116.</p> <p>2 The DOCSIS PHI layer 112 doesn't use the term</p> <p>3 "processor" so we can review what the specification</p> <p>4 then says about that aspect.</p> <p>5 Q Would a POSITA reading that passage 11:58:39</p> <p>6 understand when it refers to three functional blocks</p> <p>7 that it could be implemented on a single processor?</p> <p>8 A That's not how the invention is described.</p> <p>9 So with respect to could you implement that</p> <p>10 functionality in one processor and deviate from the 11:59:04</p> <p>11 way the invention is described, possibly a person of</p> <p>12 skill in the art would think that.</p> <p>13 Q And a POSITA would be familiar with blocked</p> <p>14 diagrams that show these separate functions and</p> <p>15 three separate blocks? 11:59:36</p> <p>16 A Well, there's certainly the concept of</p> <p>17 functional blocks and functions, you know,</p> <p>18 potentially consistent with Figure 2.</p> <p>19 And I think a person of skill in the art</p> <p>20 would also be consistent -- would understand the 11:59:50</p> <p>21 teachings of the '775 patent with respect to</p> <p>22 describing the invention from the processor</p> <p>23 perspective as conveyed both in Figure 1 and in</p> <p>24 Column 3.</p> <p>25 Q Is it reasonable for a POSITA to interpret 12:00:08</p>
<p style="text-align: right;">Page 103</p> <p>1 the entire DOCSIS cable modem</p> <p>2 functionality and is further divided</p> <p>3 into three functional blocks: DOCSIS</p> <p>4 PHI layer 112, DOCSIS MAC processor</p> <p>5 114, and DOCSIS controller 116." 11:56:21</p> <p>6 What is your understanding of the functional</p> <p>7 block of it being divided to three functional</p> <p>8 blocks?</p> <p>9 A It's describing as one of the functional</p> <p>10 blocks the DOCSIS MAC processor 114 and the DOCSIS 11:56:54</p> <p>11 controller 116. So those functional blocks are then</p> <p>12 described as processor 114, which in Column 3 it</p> <p>13 says (as read):</p> <p>14 "In one implementation that</p> <p>15 processor is in ARM9 TDMI RISC-based 11:57:12</p> <p>16 processor."</p> <p>17 And then with respect to the DOCSIS</p> <p>18 controller, it describes that starting at Column 21.</p> <p>19 And I'll not read the rest into it.</p> <p>20 It says (as read): 11:57:45</p> <p>21 "In one implementation controller</p> <p>22 116 is an ARM940-based RISC</p> <p>23 processor."</p> <p>24 And then it goes on from there. So those</p> <p>25 functional blocks are then defined in terms of the 11:57:57</p>	<p style="text-align: right;">Page 105</p> <p>1 this portion of the specification as implementing</p> <p>2 those three separate functional blocks in the same</p> <p>3 physical hardware?</p> <p>4 A In the same physical hardware is vague. It</p> <p>5 depends on -- I mean, does physical hardware mean 12:00:40</p> <p>6 the same form factor, the same overall cable modem?</p> <p>7 Does it mean the same processor, the same board, the</p> <p>8 same set of circuits?</p> <p>9 That question is too vague to give you an</p> <p>10 accurate answer. 12:00:59</p> <p>11 Q Would they read that passage and think that</p> <p>12 all three functional blocks could be implemented in</p> <p>13 a single processor?</p> <p>14 A It's hard to say what a person of skill in</p> <p>15 the art would understand just based on looking at 12:01:14</p> <p>16 that paragraph.</p> <p>17 Understanding the specification as a whole, I</p> <p>18 don't see where they would understand the invention</p> <p>19 to be implementing the functional blocks as</p> <p>20 described here of 114 and 116 with a single 12:01:36</p> <p>21 processor.</p> <p>22 Q If you look at Column 4 of the '775 patent at</p> <p>23 Lines 13 to 19, it describes functional</p> <p>24 partitioning.</p> <p>25 A Yes, I see that. 12:01:56</p>

<p style="text-align: right;">Page 106</p> <p>1 Q And it says -- at Line 16 it says (as read):</p> <p>2 "This is accomplished by localizing</p> <p>3 data networking functions in the data</p> <p>4 networking engine processor single and</p> <p>5 localizing cable modem function in the 12:02:09</p> <p>6 cable modem engine processor,"</p> <p>7 single -- singular not plural.</p> <p>8 Would you agree with that?</p> <p>9 A I think that's what it says. But I don't</p> <p>10 think the use of those words there are consistent 12:02:26</p> <p>11 with how the invention is described or what's being</p> <p>12 described in Figure 1 which is what that paragraph</p> <p>13 is referring to.</p> <p>14 Q But you agree it does describe a possible</p> <p>15 embodiment where there is a single processor for the 12:02:50</p> <p>16 cable modem engine?</p> <p>17 A No. That is not correct. This isn't an</p> <p>18 embodiment that's separate from what's described for</p> <p>19 cable modem 100. So cable modem 100 is what this</p> <p>20 paragraph is talking about. 12:03:06</p> <p>21 I agree that for the data networking engine</p> <p>22 it's described as having one processor, but with</p> <p>23 respect to the cable modem engine, the cable modem</p> <p>24 100 that's described in the invention is implemented</p> <p>25 using two processors. 12:03:25</p>	<p style="text-align: right;">Page 108</p> <p>1 And that's --</p> <p>2 Q Do you think it's not -- I'm sorry.</p> <p>3 A Sorry. That's part of what makes the claim</p> <p>4 indefinite, and I suspect that if that is being</p> <p>5 described as a viable option for the claim scope, or 12:05:09</p> <p>6 if it's determined that that's a viable option for</p> <p>7 the claim scope, there certainly is no written</p> <p>8 description for how you could accomplish that</p> <p>9 functionality without the involvement of the DOCSIS</p> <p>10 controller if it's all in the same processor. 12:05:31</p> <p>11 Q Well, I think it describes it with the</p> <p>12 heading right there, functional partitioning, which</p> <p>13 means the functions are partitioned on a single</p> <p>14 processor, wouldn't you agree?</p> <p>15 A No. The functional partitioning that it's 12:05:51</p> <p>16 describing is the functional partitioning between</p> <p>17 the data network engine and the cable modem engine.</p> <p>18 Q But it's also referring to the ability to</p> <p>19 functionally partition the functions that are part</p> <p>20 of the cable modem engine? 12:06:10</p> <p>21 A I don't think it's saying that.</p> <p>22 Q I believe your opinion relating to the MAC</p> <p>23 processor is that it has to be the ARM9 TDMI-based</p> <p>24 RISC processor that's listed in the specification.</p> <p>25 Is that -- is that fair? 12:06:56</p>
<p style="text-align: right;">Page 107</p> <p>1 I don't think that the use of the word</p> <p>2 "processor" after "cable modem engine" at Line 19 is</p> <p>3 supposed to be teaching that there's yet some other</p> <p>4 embodiment where the cable modem engine can be</p> <p>5 implemented with one processor. 12:03:44</p> <p>6 It's either a typo, or it's just referring to</p> <p>7 the cable modem engine of the invention as described</p> <p>8 in Figure 1.</p> <p>9 Q I think this passage is consistent with the</p> <p>10 claim language which says at least one processor for 12:03:59</p> <p>11 the cable modem engine, right?</p> <p>12 A I disagree that it's consistent with the</p> <p>13 claim language because, again, as I testified, if</p> <p>14 you had a -- just one processor, then it's not clear</p> <p>15 how you would meet the requirements of the 12:04:16</p> <p>16 limitation where packets are directed to the data</p> <p>17 networking engine without the involvement of the</p> <p>18 DOCSIS controller.</p> <p>19 If the CME is implemented in one chip, then</p> <p>20 every packet would be handled by the processor 12:04:36</p> <p>21 implementing both DOCSIS controller and DOCSIS MAC</p> <p>22 processor functionality, and so it wouldn't ever be</p> <p>23 possible to forward packets directly to data network</p> <p>24 engine without the involvement of the DOCSIS</p> <p>25 controller. 12:04:58</p>	<p style="text-align: right;">Page 109</p> <p>1 A You have to point me to where I say that in</p> <p>2 the declaration. I don't believe that's what I say.</p> <p>3 Q I think in Paragraph 47, I'm testing you, you</p> <p>4 describe how there are certain ARM processors</p> <p>5 described in the specification. 12:08:14</p> <p>6 Let me see if I -- so if you could turn</p> <p>7 there.</p> <p>8 A Yes, I see those two paragraphs. I don't</p> <p>9 think they say what you say I said.</p> <p>10 Q Well, earlier when we were talking about the 12:08:39</p> <p>11 ARM1, the ARM2, you pointed me to the specification</p> <p>12 where you said that ARM2 was the ARM9 TDMI-based</p> <p>13 RISC processor, and I believe you pointed to</p> <p>14 Column 3 when you made that statement?</p> <p>15 A Right. 12:09:08</p> <p>16 So I think what Paragraphs 47 and 50 say is,</p> <p>17 I think, at least for processor 114, it is described</p> <p>18 as an ARM processor.</p> <p>19 As to the further detail, it's an ARM9</p> <p>20 TDMI-based RISC processor. That is under the 12:09:40</p> <p>21 description where it says (as read):</p> <p>22 "In one implementation."</p> <p>23 So in one implementation it's an ARM9</p> <p>24 TDMI-based RISC processor, but in the rest of the</p> <p>25 specification, it says that it's an ARM processor. 12:10:02</p>

<p style="text-align: right;">Page 110</p> <p>1 Q Okay.</p> <p>2 So it's not limited to that processor, is</p> <p>3 what you were saying?</p> <p>4 A I don't think that it's -- at least in Claims</p> <p>5 18 and 19, it's not limited to an ARM9 TDMI-based 12:10:18</p> <p>6 RISC processor because that's described as an</p> <p>7 embodiment, but it is more generally defined in the</p> <p>8 invention as being an ARM processor.</p> <p>9 MS. ALLOR: Okay.</p> <p>10 I think this might be a good time for a 12:10:39</p> <p>11 break.</p> <p>12 THE DEPONENT: Okay.</p> <p>13 THE VIDEOGRAPHER: We're off the record.</p> <p>14 12:10 p.m.</p> <p>15 (Whereupon, at the hour of 12:10 12:11:49</p> <p>16 p.m., a luncheon recess was taken,</p> <p>17 the deposition to be resumed at</p> <p>18 12:47 p.m.)</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p style="text-align: right;">Page 112</p> <p>1 modem engine, you were pointing me to Figure 1.</p> <p>2 Is that fair?</p> <p>3 A I was saying that in -- in the invention as</p> <p>4 described in Figure 1 there are two processors, ARM1</p> <p>5 and ARM2 described. 12:48:17</p> <p>6 Q And it's your opinion that the fact that</p> <p>7 there's a data bus between the cable modem engine</p> <p>8 and the data networking engine, that's why it's</p> <p>9 indefinite to you.</p> <p>10 Is that -- is that fair? 12:48:29</p> <p>11 MR. BENYACAR: Object to the form.</p> <p>12 THE DEPONENT: No. I don't think that</p> <p>13 characterization is wholly accurate.</p> <p>14 BY MS. ALLOR:</p> <p>15 Q If you look at Paragraph 79 of your opinion 12:49:12</p> <p>16 in your declaration, it says -- it recites Claim 18</p> <p>17 of the data bus element that we just talked about.</p> <p>18 It says (as read):</p> <p>19 "This limitation renders a claim</p> <p>20 indefinite as the wherein clause is 12:49:27</p> <p>21 incompatible, the requirement that a</p> <p>22 data bus connects the DNE and the</p> <p>23 CME."</p> <p>24 A Right.</p> <p>25 Q So is it the fact that there is a data bus 12:49:37</p>
<p style="text-align: right;">Page 111</p> <p>1 Santa Barbara, California; Friday, April 28, 2023</p> <p>2 12:47 p.m.</p> <p>3</p> <p>4 THE VIDEOGRAPHER: On record. 12:47 p.m.</p> <p>5</p> <p>6 KEVIN ALMEROTH, PH.D.,</p> <p>7 having been previously duly sworn,</p> <p>8 was examined and testified as follows:</p> <p>9</p> <p>10 EXAMINATION (RESUMED) 12:47:12</p> <p>11 BY MS. ALLOR:</p> <p>12 Q Welcome back, Dr. Almeroth.</p> <p>13 Before we went on lunch, we were talking at</p> <p>14 great detail about the '775 patent. I just have a</p> <p>15 couple more questions on that. 12:47:23</p> <p>16 If you could look at Claim 18.</p> <p>17 A Okay. Got it.</p> <p>18 Q So you see that the last element of Claim 18</p> <p>19 is a data bus that connects the data networking</p> <p>20 engine to the cable modem engine. 12:47:41</p> <p>21 Do you see that?</p> <p>22 A I do.</p> <p>23 Q And earlier when we were talking about, you</p> <p>24 know, your opinion that there has to be two</p> <p>25 processors -- at least two processors in the cable 12:47:54</p>	<p style="text-align: right;">Page 113</p> <p>1 present, that that is why you believe the claim is</p> <p>2 indefinite?</p> <p>3 A The claim is indefinite for the -- the part</p> <p>4 that you didn't read. It's -- it's -- the wherein</p> <p>5 clause is incompatible with the requirement that the 12:49:59</p> <p>6 data bus connect the DNE and CME because of what the</p> <p>7 applicant said during prosecution and identified the</p> <p>8 data bus in Brooks as being one of the reasons why</p> <p>9 there was no separation between the first circuit</p> <p>10 and the second circuit. 12:50:20</p> <p>11 Q But you would agree that the claim described</p> <p>12 the data bus and that Figure 1 shows the data bus?</p> <p>13 A The claims do require a data bus, and</p> <p>14 Figure 1 does show a data bus, but in light of what</p> <p>15 the applicant said during prosecution, I think that 12:50:51</p> <p>16 the statements made during prosecution create a</p> <p>17 significant problem for a person of skill in the art</p> <p>18 to understand what the claims would actually cover.</p> <p>19 Q So it's your position that the data bus</p> <p>20 connecting the cable modem engine, the data 12:51:16</p> <p>21 networking engine result in them not being</p> <p>22 completely partitioned?</p> <p>23 A It's my opinion that's what the applicant</p> <p>24 said. Actually, so to be clear, the completely</p> <p>25 partitioned -- yes. It's my opinion that that's 12:51:38</p>

<p style="text-align: right;">Page 114</p> <p>1 what the applicant said during prosecution.</p> <p>2 And so if that's correct, then that creates</p> <p>3 an indefiniteness problem in the claims.</p> <p>4 Q So when you say that that's what the</p> <p>5 applicant said, the applicant did not say that you 12:52:04</p> <p>6 couldn't have a data bus.</p> <p>7 The data bus was in the claim element, was it</p> <p>8 not?</p> <p>9 A What the applicant said -- and probably the</p> <p>10 most appropriate paragraph there is Paragraph 61 -- 12:52:15</p> <p>11 that the applicant identified what was part of 102</p> <p>12 and 104, kind of what the analogous identified CME</p> <p>13 and DNE were and said because they were sharing the</p> <p>14 same data paths and sharing the same direct memory</p> <p>15 access controller and then there's the parenthetical 12:52:53</p> <p>16 that includes ASB 210, which in the Brooks figure</p> <p>17 which is included on the next page, that ASB 210 is</p> <p>18 the data bus, the applicant said, because there is</p> <p>19 that shared data path between them, that Brooks</p> <p>20 didn't disclose the claim. 12:53:25</p> <p>21 So that seemed pretty clear to me as to what</p> <p>22 the basis was for why Brooks was described by the</p> <p>23 applicant as not meeting the limitation.</p> <p>24 Q Putting aside your opinion on the prosecution</p> <p>25 history, is the claim on its own indefinite because 12:54:28</p>	<p style="text-align: right;">Page 116</p> <p>1 definitions are all -- that it's a broad term and</p> <p>2 you have to have some context for it.</p> <p>3 I think the testimony revolves around there</p> <p>4 being a lot of different levels, and if you</p> <p>5 considered different possible levels, even some 12:56:36</p> <p>6 introduced by Dr. Kramer, as additional levels, then</p> <p>7 it makes the claim not reasonably understandable or</p> <p>8 reasonably certain to a person of skill in the art.</p> <p>9 BY MS. ALLOR:</p> <p>10 Q But you are aware the examiner never issued 12:57:16</p> <p>11 any indefiniteness rejections, right?</p> <p>12 A I would have to go back and check. I thought</p> <p>13 there was an indefiniteness before the claims were</p> <p>14 amended. Maybe I'm misremembering. But I think</p> <p>15 the -- the prosecution history... 12:57:36</p> <p>16 Q Well, the examiner doesn't issue an</p> <p>17 indefiniteness rejection at the -- you know, after</p> <p>18 the claims were amended and prior to allowance?</p> <p>19 A Right. And I thought about that. And I</p> <p>20 think what happened is in terms of coming up with a 12:57:58</p> <p>21 reason to traverse Brooks the applicant made</p> <p>22 statements that distinguished the claims from Brooks</p> <p>23 but there wasn't really a consideration for the</p> <p>24 totality of the impact of those statements as it</p> <p>25 relates to how a person of skill in the art would 12:58:21</p>
<p style="text-align: right;">Page 115</p> <p>1 there's a data bus connecting the cable modem engine</p> <p>2 and the data networking engine?</p> <p>3 A First part is it's a little hard for me to</p> <p>4 separate out and ignore the intrinsic record and</p> <p>5 create a hypothetical where the intrinsic record is 12:55:11</p> <p>6 not to be considered in understanding what a person</p> <p>7 of skill in the art would understand about the</p> <p>8 claims.</p> <p>9 But in attempting to do so, the challenge</p> <p>10 still becomes with respect to the wherein clause of 12:55:28</p> <p>11 the data bus limitations where you have the cable</p> <p>12 modem engine and the home networking functions of</p> <p>13 the data networking engine being completely</p> <p>14 partitioned and having separate circuits when how a</p> <p>15 circuit is to be interpreted by a person of skill in 12:55:54</p> <p>16 the art in the context of the '775 patent is not</p> <p>17 reasonably certain.</p> <p>18 Q But isn't it your opinion -- and we've</p> <p>19 discussed this a lot today -- that you can't tell me</p> <p>20 what the meaning of circuit is with respect to the 12:56:13</p> <p>21 '775 patent?</p> <p>22 MR. BENYACAR: Object to the form. Misstates</p> <p>23 testimony.</p> <p>24 THE DEPONENT: Yeah. It's not about whether</p> <p>25 or not there's a definition. It's -- the 12:56:24</p>	<p style="text-align: right;">Page 117</p> <p>1 actually understand as to what the scope of the</p> <p>2 claims -- the resulting scope of the claims would be</p> <p>3 and that's, I think, in part when you do start to</p> <p>4 think of the scope of the claims as understood by a</p> <p>5 person of skill in the art, it becomes clear that 12:58:44</p> <p>6 they are not reasonably certain because of what the</p> <p>7 applicant said -- or at least one of the reasons.</p> <p>8 Q So if you look at your Paragraph 62 where you</p> <p>9 reproduced Figure 2, Brooks.</p> <p>10 A Yes. 12:59:28</p> <p>11 Q Is it your understanding that the examiner</p> <p>12 mapped processor 1, which is No. 102, with a data</p> <p>13 networking engine and processor 2, which is No. 104,</p> <p>14 to the cable modem engine?</p> <p>15 A That is my recollection. I'd have to go back 12:59:51</p> <p>16 and double-check. I think that's -- that's correct.</p> <p>17 And then I think the applicant came back and said,</p> <p>18 no, there's some additional things, components that</p> <p>19 needed to be considered. Those are in Paragraph 61.</p> <p>20 So it's also blocks 114, 118, 224 and 228. 01:00:05</p> <p>21 Q So wasn't the real issue that the CMAC, which</p> <p>22 is 224, that the examiner was attributing cable</p> <p>23 modem engine functionality to both processor 2</p> <p>24 No. 104, and the CMAC?</p> <p>25 A You know, I -- I don't think that is 01:00:47</p>

<p style="text-align: right;">Page 118</p> <p>1 accurate. More importantly, I think it's pretty 2 clear in that quote in Paragraph 61 -- and it's the 3 italicized portion -- it's what the applicant said. 4 So kind of -- I know there's been some statements 5 from Dr. Kramer about, well, the applicant was 01:01:10 6 uncertain what the examiner was saying and they are 7 a little bit hard to parse. 8 He's almost saying, like, I think the 9 applicant was thinking the examiner was thinking. 10 But ultimately the important point is when 01:01:25 11 the applicant identified what was part of the DNE 12 and the CME, it identified additional numbered parts 13 of the figure that's reproduced as being something 14 that shares the same data path and the same direct 15 memory access controller and pointed to the data 01:01:52 16 bus, ASB 210 and said that was an example where the 17 data paths between the CME and the DNE were shared. 18 And that's -- that pretty clear description 19 is what I think creates the indefiniteness problem 20 as it relates to the data bus portion of the claim. 01:02:23 21 Q Did you look at the rest of the file history 22 and the rest of the arguments regarding Brooks? 23 A Yes, I did. 24 And I even considered what Dr. Kramer said 25 about other portions of the file history and, you 01:03:10</p>	<p style="text-align: right;">Page 120</p> <p>1 provisional -- the provisional was the earliest 2 priority date, December 15, 2008. 3 Q And in Paragraph 80 you're quoting some lines 4 from -- from the '690 patent at Column 1, 48 to 63. 5 Do you see that? 01:05:56 6 A I am. 7 Q Is that -- is that language directed to the 8 '690 patent -- the invention of the '690 patent or 9 is it directed to prior art? 10 A This particular sentence would apply to both. 01:06:35 11 The distinction becomes as the '690 patent would 12 allow for allow for is instead of using a fixed 13 predetermined probe that a dynamic probe can be 14 determined. 15 Q And where are you reading that from? 01:07:12 16 A So the first part of the answer with respect 17 to the idea that between nodes of the network that 18 probes are sent into predefined format, that's 19 applicable to both the prior art and the '690 20 patent. 01:07:31 21 With respect to what the '690 patent is 22 supposed to innovate on, that's at the bottom of 23 Column 1 where sending kind of a fixed predetermined 24 probe reduces the amount of the flexibility of the 25 characterization process. 01:07:57</p>
<p style="text-align: right;">Page 119</p> <p>1 know, I've looked through each of the things that he 2 said about the file history. 3 And it ultimately doesn't change my opinion 4 with respect to what the applicant wrote and that 5 I've cited in Paragraph 61. 01:03:25 6 Q So you don't think that the applicant 7 argument that the processor 1, No. 102, that handled 8 some cable modem function so you don't think that's 9 relevant at all? 10 A No. Didn't say that. 01:03:45 11 Q So I'm going to turn to Paragraph 80 of your 12 declaration, the '690 patent, and let's add the '690 13 patent as an exhibit for you. 14 (Exhibit 6 was marked for 15 identification and is attached 01:04:17 16 hereto.) 17 BY MS. ALLOR: 18 Q You should have Exhibit 6 now in your folder. 19 A I have it downloaded and open. 20 It's on my phone. I put it on. 01:04:57 21 Q So when you prepared your declaration, with 22 respect to the '690 patent, what was the priority 23 date that you applied? 24 MR. BENYACAR: I think you're on mute. 25 THE DEPONENT: I assumed for purposes of the 01:05:27</p>	<p style="text-align: right;">Page 121</p> <p>1 And so the summary of the invention would be 2 allow -- to create the ability to send a probe 3 pattern that's based on what the requirements of the 4 invention in the claim are. 5 Q We should look at Claim 1 of the '690 patent. 01:08:31 6 A Yes. 7 Q Is it your position that Claim 1 requires a 8 receiving node to be the node that initially sends 9 the probe request? 10 A Sorry. Could you repeat that? 01:09:13 11 Q So Claim 1 -- and also I'm looking at your 12 opinion in Paragraph 83. So I'm trying to 13 understand what it is that your opinion is and 14 whether it's -- the fact that you believe Claim 1 15 requires that the receiving node be the node that 01:09:36 16 initially sends the probe requests. 17 A So consistent with Figure 4 the thing that's 18 receiving the probe request is the first node, and 19 the first node would be the probe transmitter. 20 So it's receiving a request for a probe from 01:10:14 21 the probe receiver, and then it's going to determine 22 the second plurality of parameters and then generate 23 the probe and then transmit the probe. 24 I mean, that's kind of consistent with how 25 Figure 4 is describing the invention. 01:10:35</p>

<p style="text-align: right;">Page 122</p> <p>1 Q Where in the claim language does it say that 2 the requesting node is the same as the receiving 3 node? 4 A I think maybe it would -- Figure 4 in the 5 context of Claim 1, so you said the receiving node. 01:11:29 6 So I'm assuming you're asking about receiving in a 7 first node. Okay. 8 So that's -- the first node is receiving, and 9 then it says a probe request. So there's a first 10 node that receives a probe request. 01:11:46 11 And I'll stop there. The -- there's an idea 12 of -- the question of who's going to be transmitting 13 the probe request. That's shown in Figure 4 is 14 coming from the probe receiver. 15 It doesn't say where the probe request is 01:12:11 16 coming from in Claim 1, but I think, based on 17 Figure 4 as to what the invention is and kind of the 18 goals of the invention and how it's described, it 19 would be understood that that probe request is 20 coming from the probe receiver. 01:12:31 21 And so the probe receiver is not the first 22 node. It would be some other node. 23 Q You use the word "requesting node" in your 24 Paragraph 83. I didn't say that was in the claim 25 language at all. 01:12:57</p>	<p style="text-align: right;">Page 124</p> <p>1 language. 2 The probe transmitter receives that, 3 generates the probe, and there's a second set of 4 parameters, and then sends the probe. 5 And now the probe receiver gets it, and using 01:14:41 6 the pattern it's received is able to tell something 7 about the communication path. 8 So the probe -- receiving in a first node is 9 actually the probe transmitter. In Paragraph 83 10 when I said "wherein the receiving node," and it 01:14:58 11 says in parentheses, which can also be referred to 12 as the requesting node, that's the probe receiver. 13 So 1A is talking about the probe transmitter 14 as being the first node. And I'm talking about in 15 the first sentence of 83, the probe receiver, the 01:15:16 16 thing that receives the probe. 17 BY MS. ALLOR: 18 Q So with respect to Claim 1, receiving in a 19 first node, you're referring to that in your 20 Paragraph 83 as the receiving node; is that correct? 01:15:41 21 A No. No. 22 Q You're referring to that as the problem 23 transmitter of Figure 4? 24 A In the first sentence of 83, that's correct. 25 Q So where in the claim language does it say 01:16:03</p>
<p style="text-align: right;">Page 123</p> <p>1 A Okay. 2 Q So I was trying to understand your opinion in 3 83 and where in the claim language of number -- 4 Claim 1, where do you see the requirement that the 5 receiving node be the node that initially sends the 01:13:13 6 probe requests? 7 MR. BENYACAR: Objection; asked and answered. 8 THE DEPONENT: Maybe I understand your 9 confusion. In Paragraph 83 it says (as read): 10 "Wherein the receiving node." 01:13:36 11 And you're interpreting that to refer to 12 Limitation 1A that says receiving in a first node. 13 And that receiving node and receiving in a first 14 node are the same thing. And that's -- that's not 15 the case. 01:13:54 16 So to kind of use the terminology of Figure 4 17 and the claim in Paragraph 83, let me try and 18 resolve it. 19 So the way that this works is there's a probe 20 request that's sent from what's called the probe 01:14:09 21 receiver, and it's a little bit confusing because 22 you send -- send a request from a receiver. 23 But the idea is that the probe receiver tells 24 the probe transmitter, "Hey, this is a first 25 plurality of parameters," and the rest of the 01:14:26</p>	<p style="text-align: right;">Page 125</p> <p>1 that the second node, which is if we map that to 2 Figure 4, is, in your opinion, the probe receiver, 3 where does it say that the second node has to be the 4 same node that transmitted that initial request? 5 A That's all the invention ever describes it 01:16:28 6 as. That's the only thing that would make sense in 7 the context of the invention. 8 Q If you look at specification at Column 7, 9 Lines 12 to 13, it says -- 10 A I did. 01:16:57 11 Q (As read): 12 "In other embodiments the probe 13 request might be transmitted by a 14 different probe than the probe 15 receiver." 01:17:07 16 Do you see that? 17 A On a different node but otherwise I think you 18 read it correctly, and I see it. 19 Q So doesn't that say that it does not have to 20 be set up the way you just argued that Claim 1 is? 01:17:18 21 A I see that embodiment with respect to who 22 does the transmitting of the probe request. 23 You are right. It doesn't say that it has to 24 come from a second node. It could come from a third 25 node. 01:18:47</p>

<p style="text-align: right;">Page 126</p> <p>1 There's no as of yet second or third node 2 identified in Claim 1. That doesn't -- that's not 3 the point of the first sentence, though, I see your 4 point. 5 Q Okay. 01:19:01 6 And, in fact, dependent Claim 6 actually adds 7 that requirement, that probe request be generated by 8 the second node. 9 So would you agree with me that claim 10 differentiation means that the dependent claim has 01:19:15 11 to add something to the independent claim, and so 12 the probe request does not need to be generated by 13 the second node in Claim 1? 14 A I see that I'd have to look at claim 15 differentiation in Claim 6. I haven't looked at it 01:19:37 16 so far. 17 I'd have to give it a little bit more 18 thought, but that seems right as least with respect 19 to who can generate the probe request. 20 Q So if we look at the rest of your 01:19:56 21 Paragraph 83, you say that both Claims 1 and 9 22 require a first plurality of parameters and a second 23 plurality of parameters. 24 Do you see that? 25 A I see that. 01:20:15</p>	<p style="text-align: right;">Page 128</p> <p>1 probe. 2 Q And then you would agree that the claim 3 language specifies or states that the second 4 plurality of parameters are determined, for example, 5 in the node that generates the probe? 01:22:25 6 A I know Claim 9 explicitly says (as read): 7 "The second plurality of parameters 8 are determined by the second node." 9 That's at the very end of the claim. In 10 Claim 1 it doesn't say what determines a second 01:22:58 11 plurality of parameters associated with generation 12 and transmission of the probe. 13 It could be, for example, the second node. I 14 think -- that's not shown -- I don't think that's 15 discussed in the specification, to my recollection. 01:23:27 16 I don't think there's much of a discussion of the 17 second plurality of parameters. 18 Q We can just focus on Claim 9 then because my 19 question is, what is the difference between 20 specifying the parameters with respect to the first 01:23:53 21 plurality and determining the parameters with 22 respect to the second plurality? 23 A I'm not sure I can articulate a difference 24 between the two. I think in the way in which they 25 are used provides some guidance so the probe request 01:24:19</p>
<p style="text-align: right;">Page 127</p> <p>1 Q In your -- 2 A Let me back up. 3 Can you repeat the question? Because I'm 4 trying to -- I just want to double-check the 5 language you used in your question. 01:20:37 6 Q So in your Paragraph 83, you say that Claims 7 1 and 9 require or have a first plurality of 8 parameters and a second plurality of parameters. 9 Do you see that? 10 A I see that. 01:21:04 11 Q And if we look at Claims 1 and Claim 9, we 12 see the language showing up in both of them, a first 13 plurality of parameters and a second plurality of 14 parameters. 15 Is that fair? 01:21:23 16 A Yes. 17 Q So my question is, is it your understanding 18 that in Claims 1 and in Claims 9 that the first 19 plurality of parameters are specified in the probe 20 requests? 01:21:38 21 A That's what it says, a probe request 22 specifying the first plurality of parameters at 23 least in Claim 1. I think there's something similar 24 in Claim 9, the probe request specifying a first 25 plurality of probe parameters for a physical layer 01:21:59</p>	<p style="text-align: right;">Page 129</p> <p>1 has to specify. 2 So the probe request would, for example, be a 3 message, and so that would have to specify in the 4 message. 5 The determining would be more about creating 01:24:31 6 those second plurality of parameters, determining 7 what they are. 8 Q So if we go back to look at Claim 1 there it 9 uses the language dictated by the first plurality of 10 parameters. 01:25:17 11 Do you see that? Wherein the form -- wherein 12 the probe has a form dictated by the first plurality 13 of parameters? 14 A Yes. 15 Q And if we look at Claim 9, it says (as read): 01:25:30 16 "Wherein the probe is generated in 17 accordance with the first plurality of 18 parameters" -- oh, sorry. I meant to 19 read (as read): 20 "Comprising a form for the probe." 01:25:48 21 So I want to compare in Claim 1 wherein the 22 probe has a form dictated by the first plurality of 23 parameters to Claim 9 where it says (as read): 24 "The first plurality of probe 25 parameters comprising a form for the 01:26:10</p>

<p style="text-align: right;">Page 130</p> <p>1 probe."</p> <p>2 And my question is, what is the difference in</p> <p>3 the claim language there?</p> <p>4 A I'm not sure what you're asking. I mean, I</p> <p>5 see that -- the different words. 01:26:27</p> <p>6 If you're asking me to compare and contrast</p> <p>7 the claim scope between the two of those, I'm not</p> <p>8 sure how you would want me to do that even if that's</p> <p>9 what you're asking.</p> <p>10 So maybe you have to provide a better worded 01:26:48</p> <p>11 question.</p> <p>12 Q Well, in Paragraph 84 you -- you make the</p> <p>13 statement that those are similar.</p> <p>14 And my question is, how are they similar and</p> <p>15 if they -- if it is your opinion that they are 01:27:01</p> <p>16 similar, I want to understand how come you think</p> <p>17 they are similar?</p> <p>18 A The claims -- they are similar. The claims</p> <p>19 appear to both cover the form of the probe being</p> <p>20 determined only by the parameters sent by the 01:27:32</p> <p>21 requesting node, by what's included in the first</p> <p>22 plurality of parameters.</p> <p>23 Q In your opinion, there's no difference in</p> <p>24 those phrases?</p> <p>25 A I didn't say there were any differences. You 01:27:59</p>	<p style="text-align: right;">Page 132</p> <p>1 way the patent talks about what the parameters would</p> <p>2 be, that would define how that term is used in the</p> <p>3 claims.</p> <p>4 Q Is there information that's included in the</p> <p>5 creation of the probe so in the message that's being 01:30:17</p> <p>6 sent besides just the parameters?</p> <p>7 A That question is vague with respect to in the</p> <p>8 creation of the probe.</p> <p>9 Q Well, I believe you said that the parameters</p> <p>10 are specified in the probe request. Is there other 01:30:43</p> <p>11 information that's included in that probe request?</p> <p>12 A I don't understand the question as to whether</p> <p>13 or not you're asking whether or not there could be a</p> <p>14 hypothetical system where there are messages that</p> <p>15 include additional information in the probe request 01:31:04</p> <p>16 or whether or not the claims require it, allow for</p> <p>17 it.</p> <p>18 Your question is not specific.</p> <p>19 Q So you pointed me to some parameters in</p> <p>20 Column 2, and I'm just asking if there's other 01:31:23</p> <p>21 information that could be transmitted in the probe</p> <p>22 request besides the parameters that are described</p> <p>23 there.</p> <p>24 A That question does not resolve the ambiguity</p> <p>25 I had with the previous question. 01:31:38</p>
<p style="text-align: right;">Page 131</p> <p>1 asked about the similarities.</p> <p>2 I identified -- that sentence is identifying</p> <p>3 the similarities that doesn't lead to a conclusion</p> <p>4 that there's no differences.</p> <p>5 Q How would you determine the term "parameter" 01:28:10</p> <p>6 from the prospective of a POSITA?</p> <p>7 A I don't have a particular dictionary</p> <p>8 definition that I've offered. I believe there are</p> <p>9 some examples of what parameters would be in the</p> <p>10 patent. 01:28:41</p> <p>11 I think it's around Column 2 about Lines 10.</p> <p>12 It talks about what parameters can include.</p> <p>13 Q Are there other kinds of parameters besides</p> <p>14 those listed in Column 2?</p> <p>15 A There could be as long as they meet the 01:29:12</p> <p>16 requirements of -- of both what the claims require,</p> <p>17 right? It does -- in Column 2, it says (as read):</p> <p>18 "Accordingly the probe request</p> <p>19 specifies a plurality of parameters</p> <p>20 associated with the generation and 01:29:35</p> <p>21 transmission of a probe, including the</p> <p>22 content of the payload of the probe."</p> <p>23 And then it goes on to say -- in one</p> <p>24 embodiment it talks about what some of those</p> <p>25 examples would be. So I think consistent with the 01:29:48</p>	<p style="text-align: right;">Page 133</p> <p>1 Q In the context of a CMTS and a cable modem,</p> <p>2 wouldn't you agree that the purpose of the probe is</p> <p>3 to communicate information and measurements from the</p> <p>4 cable modem back to the CMTS?</p> <p>5 A No. 01:32:05</p> <p>6 Q So what is the purpose of the probe?</p> <p>7 A Well, the probe is what would get sent from</p> <p>8 the CMTS to the cable modem, I think, consistent</p> <p>9 with the DOCSIS describes a probe.</p> <p>10 So that would have -- whatever the particular 01:32:34</p> <p>11 pattern that would be identified in the probe, cable</p> <p>12 modem would receive that and could potentially</p> <p>13 generate some results based on having received that</p> <p>14 probe.</p> <p>15 But I think what you described in your 01:32:51</p> <p>16 question was something different than what the probe</p> <p>17 would be.</p> <p>18 Q What information is being transmitted from</p> <p>19 the cable modem to the CMTS?</p> <p>20 A Again, your question is vague with respect to 01:33:15</p> <p>21 what it says in the specification, what the claims</p> <p>22 require, what's identified in DOCSIS in some accused</p> <p>23 system, some hypothetical system.</p> <p>24 Your question doesn't provide any context.</p> <p>25 Q So as a POSITA you can't explain to me what 01:33:29</p>

<p style="text-align: right;">Page 134</p> <p>1 information is being sent back from the cable modem?</p> <p>2 MR. BENYACAR: Object to the form.</p> <p>3 THE DEPONENT: It would be the same answer.</p> <p>4 I could if you told me information sufficient to</p> <p>5 answer the question. 01:33:47</p> <p>6 BY MS. ALLOR:</p> <p>7 Q So isn't it true that the node that receives</p> <p>8 the probe request, that that node is what's</p> <p>9 determining the information to include in the probe?</p> <p>10 A Your -- again, your question isn't really 01:34:26</p> <p>11 specific to -- you're talking about the patent, the</p> <p>12 claim. I can assume one or you can tell me which</p> <p>13 one.</p> <p>14 Q Well, if you look at Claim 1, it says (as</p> <p>15 read): 01:34:46</p> <p>16 "Receiving in the first node a</p> <p>17 probe request."</p> <p>18 And so my question is in that first node</p> <p>19 that's receiving the probe request, it is then</p> <p>20 specifying the responsive information and 01:35:05</p> <p>21 measurements that it's going to include in the</p> <p>22 transmission of a probe.</p> <p>23 Is that correct?</p> <p>24 A No.</p> <p>25 Q Okay. 01:35:20</p>	<p style="text-align: right;">Page 136</p> <p>1 described in the claims and in this specification.</p> <p>2 Well, there's at least the first plurality of</p> <p>3 parameters that's described in the specification.</p> <p>4 The claims have two pluralities.</p> <p>5 Q I'm introducing as Exhibit 7 the '682 patent. 01:37:18</p> <p>6 (Exhibit 7 was marked for</p> <p>7 identification and is attached</p> <p>8 hereto.)</p> <p>9 BY MS. ALLOR:</p> <p>10 Q Let me know when you have it. 01:38:21</p> <p>11 A I have downloaded it and I have it open.</p> <p>12 Exhibit 7.</p> <p>13 Q Okay.</p> <p>14 Great. The portion of your declaration that</p> <p>15 addresses the '682 patent, it starts with 01:38:38</p> <p>16 Paragraph 85.</p> <p>17 Do you see that?</p> <p>18 A Yes.</p> <p>19 Q When you were preparing your declaration,</p> <p>20 what priority date did you assume for the '682 01:38:48</p> <p>21 patent?</p> <p>22 A For purposes of evaluating this patent, I</p> <p>23 assumed it was the earliest provisional that was</p> <p>24 filed.</p> <p>25 I believe it's July 23, 2012, and just to be 01:39:05</p>
<p style="text-align: right;">Page 135</p> <p>1 Why not?</p> <p>2 A You said, information and measurements?</p> <p>3 That's -- that's not what would go into a probe.</p> <p>4 It's not what -- the specification describes,</p> <p>5 for example, in Figure 4, generating -- (as read): 01:35:45</p> <p>6 "Generate probe according to</p> <p>7 specified parameters."</p> <p>8 And then transmitting the generated probe</p> <p>9 signal. That's not information and measurements.</p> <p>10 Information is vague, but consistent with, I 01:35:57</p> <p>11 think, how you started the discussion of this whole</p> <p>12 patent, that's supposed to be whatever sequence of</p> <p>13 information that's been created.</p> <p>14 So instead of a predetermined probe, it's now</p> <p>15 a probe whose form is determined -- well, then the 01:36:17</p> <p>16 claim says it's supposed to be dictated by the first</p> <p>17 plurality of parameters, and that creates the</p> <p>18 indefinite issue in Claim 1 and Claim 9 because that</p> <p>19 form is actually determined by the first and second</p> <p>20 plurality of parameters. 01:36:41</p> <p>21 So it's not information and</p> <p>22 measurement -- measurements.</p> <p>23 Q It's a plurality of parameters, parameters</p> <p>24 being the described in the specification.</p> <p>25 A There's multiple pluralities of parameters 01:37:04</p>	<p style="text-align: right;">Page 137</p> <p>1 clear, that's the assumption I made.</p> <p>2 I didn't do any analysis to determine if --</p> <p>3 the provisional support, the priority date, et</p> <p>4 cetera.</p> <p>5 Q That's -- that's fine. I mean, I'm just 01:39:22</p> <p>6 asking because you don't have a date listed</p> <p>7 anywhere.</p> <p>8 So I was just trying to get your</p> <p>9 understanding of what time your opinions are based</p> <p>10 in. 01:39:29</p> <p>11 A Understood.</p> <p>12 Q So if you could turn to Paragraph 90 of your</p> <p>13 declaration.</p> <p>14 A Okay.</p> <p>15 Q So here you've annotated Figure 2B? 01:39:47</p> <p>16 A Yes.</p> <p>17 Q Why have you labeled each step of this graph</p> <p>18 as an individual cable modem?</p> <p>19 A So the reason for that is at -- by</p> <p>20 Paragraph 90 we now have this hypothetical service 01:40:08</p> <p>21 group.</p> <p>22 So we've gone through the limitations of</p> <p>23 Claim 1 where the CMTS has assigned each cable modem</p> <p>24 among a plurality of service groups.</p> <p>25 So now what I'm trying to describe is this 01:40:27</p>

<p style="text-align: right;">Page 138</p> <p>1 composite worst case S&R profile.</p> <p>2 And so that composite worst case S&R profile</p> <p>3 is for each of the cable modems in this hypothetical</p> <p>4 service group and for each of the sub-frequencies</p> <p>5 that are identified, there is going to be a worst 01:40:47</p> <p>6 case S&R value among the members of the service</p> <p>7 group.</p> <p>8 And so the reason why you look at the worst</p> <p>9 case S&R profile or the worst case S&R at each of</p> <p>10 the frequency sub-bands is to understand among the 01:41:11</p> <p>11 service group what the worst case S&R is.</p> <p>12 And so the -- the labeled version of 2B shows</p> <p>13 that the composite at each of the sub-frequencies is</p> <p>14 to pick among the S&R values at each sub-frequency</p> <p>15 what's the worst case S&R. 01:41:38</p> <p>16 And so the reason that kind of description is</p> <p>17 contained in Paragraph 90, the sentence that</p> <p>18 transitions from Page 40 to 41 says I've annotated</p> <p>19 that figure to show those particular examples.</p> <p>20 And so CMA has the worst -- sorry, CMA, cable 01:42:02</p> <p>21 modem A, has the worst S&R at sub-carriers 2, 5 and</p> <p>22 7. CMB is at sub-carrier 1. And then, et cetera.</p> <p>23 And then that's kind of the modified version</p> <p>24 of 2B that's shown after Paragraph 90.</p> <p>25 Q Okay. 01:42:26</p>	<p style="text-align: right;">Page 140</p> <p>1 left corner, you have CMB. So is that cable modem</p> <p>2 B?</p> <p>3 A Yes.</p> <p>4 Q And then we move down, and we've got cable</p> <p>5 modem A -- 01:44:18</p> <p>6 A Yes.</p> <p>7 Q -- at sub 2.</p> <p>8 So my question is, you show cable modem A</p> <p>9 three times.</p> <p>10 A Right. 01:44:30</p> <p>11 Q So are those -- are those -- are you</p> <p>12 identifying what's the worst case -- or, sorry,</p> <p>13 what's the worst cable modem at each step?</p> <p>14 A So the worst case S&R among the set of five</p> <p>15 cable modems at each step. 01:44:49</p> <p>16 Q Okay.</p> <p>17 So if -- if our service group was cable modem</p> <p>18 A, B, C, D, E, you're saying at sub-frequency 1,</p> <p>19 cable modem B has got the worst S&R. At</p> <p>20 sub-frequency 2, cable modem A has the worst case 01:45:07</p> <p>21 S&R?</p> <p>22 A That's correct. That would be the composite</p> <p>23 worst case S&R value for each sub-frequency. So</p> <p>24 when you do all of the sub-frequencies together,</p> <p>25 that makes a profile. 01:45:32</p>
<p style="text-align: right;">Page 139</p> <p>1 I believe you said that this is the composite</p> <p>2 worst case S&R for each of these cable modems?</p> <p>3 Is that -- that what you said?</p> <p>4 A No.</p> <p>5 Q You said (as read): 01:42:50</p> <p>6 "And so that -- the composite worst</p> <p>7 case S&R profile is -- these are the</p> <p>8 cable modems in this hypothetical</p> <p>9 where -- at the sub-frequencies you're</p> <p>10 identifying." 01:43:04</p> <p>11 A Right. That last part you didn't add.</p> <p>12 So the composite is a combination, and so at</p> <p>13 each sub-frequency, you look at the S&R values from</p> <p>14 each of the five cable modems in the hypothetical</p> <p>15 service group, and you pick the worst case S&R 01:43:18</p> <p>16 value.</p> <p>17 And that becomes the worst case S&R value for</p> <p>18 that particular sub-frequency.</p> <p>19 And the profile then is the worst case S&R</p> <p>20 value at each of the sub-frequencies and the 01:43:38</p> <p>21 composite is for the collection of the five cable</p> <p>22 modems as measured across the five cable modems in</p> <p>23 the hypothetical service group.</p> <p>24 Q So are you saying that -- so the figure that</p> <p>25 you have there shows -- if I start at the top of the 01:44:08</p>	<p style="text-align: right;">Page 141</p> <p>1 Q Okay.</p> <p>2 I think I understand what you are saying.</p> <p>3 So if we turn to Paragraph 94, the first --</p> <p>4 the first sentence -- well, sorry, the second</p> <p>5 sentence, you said (as read): 01:45:52</p> <p>6 "Since the worst case S&R is always</p> <p>7 an S&R of zero, a POSITA seeing the</p> <p>8 term "worst case S&R profile" would</p> <p>9 likely assume" -- "well, would most</p> <p>10 likely assume and is an S&R profile 01:46:05</p> <p>11 containing only zeros."</p> <p>12 Do you see that?</p> <p>13 A I do.</p> <p>14 Q So where did you get your opinion that the</p> <p>15 worst case S&R is always an S&R of zero? 01:46:14</p> <p>16 A So this is on the point that a worst case S&R</p> <p>17 profile without understanding what that means in the</p> <p>18 context of the invention and what the set of values</p> <p>19 are that this -- claims in the patent describes as</p> <p>20 being the basis for selecting the worst case S&R 01:46:38</p> <p>21 profile to build a composite, just saying you have a</p> <p>22 worst case S&R profile.</p> <p>23 It would be a -- the worst case for</p> <p>24 signal-to-noise ratio is a zero signal, so a zero.</p> <p>25 The point of this paragraph is to show that 01:47:00</p>

<p style="text-align: right;">Page 142</p> <p>1 what this is really referring to when you talk about 2 a worst case S&R profile is there has to be a set of 3 S&R values or -- for one sub-frequency or an S&R 4 profile across multiple frequencies against which 5 you have to pick the worst case. 01:47:23 6 So it's like saying if I had five 7 number -- if I said, what's the lowest possible 8 number, you would say, well, it's zero, assuming 9 non-negative numbers. So it's always going to be 10 zero. 01:47:39 11 If I said, what's the -- the lowest value 12 among 2, 3, 8, 7, and 10, you would say, oh, okay, 13 well, in that sense it's 2. It's the lowest value 14 among that set of values. 15 So the point I'm making in the first couple 01:47:52 16 of sentences of Paragraph 94 is this term doesn't 17 have a plain and ordinary meaning because if -- if 18 you look at the plain and ordinary meaning, it's 19 always going to be zero. You have to look at what 20 the claim in the specification says when it refers 01:48:09 21 to a worst case S&R profile. 22 And so it's referring to the composite worst 23 case S&R profile, the composite being the 24 combination of those values in the set to make the 25 value meaningful. 01:48:25</p>	<p style="text-align: right;">Page 144</p> <p>1 of zero, which is why just saying a worst case S&R 2 profile, a person of skill in the art, seeing that 3 term in the claim, would look to the specification 4 to understand what it means by a worst case S&R 5 profile, and what the specification described is 01:52:05 6 when you have a worst case, in the context of an S&R 7 profile, it's talking about a composite worst case. 8 You're figuring out the lowest value among 9 the set of values. If you don't have the context 10 for the set of values, then it's just going to be 01:52:24 11 zero. It's back to my example of what's the 12 smallest number possible. 13 Without -- it finding a set of values over 14 which to evaluate that condition, it's just going to 15 be zero. So I think your question goes to why it 01:52:37 16 has to be something other than just zero, and I 17 agree, I think a person of ordinary skill in the art 18 would accept that and look to understand what the 19 patent means when it says a worst case S&R profile, 20 and that would be the composite. 01:53:01 21 Q Right. 22 But if there was a cable modem in the service 23 group that was at zero, and they set the composite 24 at zero, that cable modem would not be receiving and 25 transmitting -- I'm sorry, receiving and accurately 01:53:29</p>
<p style="text-align: right;">Page 143</p> <p>1 Q If I look at Figure 2B, isn't it true that 2 Line 224 is the minimums and that's not set at zero? 3 A So 224 is described once, so that's saying 4 the S&R needed for receiving the message 202 may be 5 the Line 224. So in order to determine what 224 is, 01:49:41 6 it has to be less than all of the values at 222. 7 And that's -- that's not actually a worst 8 case value if it's -- even if you're asking about 9 the worst case to be able to successfully transmit, 10 that's a worst case -- I mean, it would depend on 01:50:26 11 the sub-frequency. It would actually be just below 12 each of those sub-frequencies which would be what's 13 described in the next figure, Figure 2C, as the 14 solid line, 226. 15 There's also a difference in the line at 224 01:50:52 16 where it looks to be taking a worst case value of 17 all of the sub-frequencies and identifying something 18 below that for all of the sub-frequencies. So if 19 you compared 224 to 226. 20 So that's -- 224 is something different than 01:51:21 21 226. 22 Q Well, wouldn't you agree that if the signal 23 ratio, the S&R was a zero, you wouldn't be able to 24 receive and accurately measure the S&R profile? 25 A You wouldn't be able to do much with an S&R 01:51:47</p>	<p style="text-align: right;">Page 145</p> <p>1 measuring S&R. 2 A That's an interesting hypothetical. If you 3 had a cable modem with an S&R of zero, it logically 4 would not be in the service group. I mean, the 5 whole point of what the patent is describing here is 01:53:40 6 for each service group being able to identify a 7 worst case S&R sufficient to meet all the 8 requirements of the cable modems in the service 9 group. 10 Q I know we have been talking about S&R. Just 01:54:16 11 for clarity's sake, what does S&R mean to you? 12 A It stands for signal-to-noise ratio. 13 Q What is the noise part of the S&R? 14 A It's usually the noise that's introduced on a 15 channel, can come from a variety of sources, 01:54:31 16 interference, cross-talk, signal fade, those kinds 17 of things. 18 Q Is there such thing as harmonic noise in a 19 cable communications system? 20 A I would have to double-check. I think there 01:54:46 21 can be a variety of sources of noise in a cable TV 22 system. I don't have the set of noise sources 23 memorized. 24 Q Have you heard of first noise? 25 A Yes. 01:55:02</p>

<p style="text-align: right;">Page 146</p> <p>1 Q And what about electromagnetic interference</p> <p>2 noise?</p> <p>3 A I did mention interference as a source of</p> <p>4 noise already.</p> <p>5 Q Okay. 01:55:18</p> <p>6 A It depends on the system whether or not those</p> <p>7 are the kinds of noises -- noise sources that you</p> <p>8 are trying to adjust for.</p> <p>9 Q So you are not sure if the '682 patent is</p> <p>10 describing measurements of those types of noises? 01:55:36</p> <p>11 A Tying it back to the '682 and what the '682</p> <p>12 patent covers, I don't have the list of noise</p> <p>13 sources contemplated in the invention and according</p> <p>14 to the claims memorized. I would have to go through</p> <p>15 and see if there are certain noise sources that are 01:55:57</p> <p>16 included or excluded based on what it says. That's</p> <p>17 not an analysis I've yet done.</p> <p>18 Q And how is S&R measured?</p> <p>19 A It depends on the system.</p> <p>20 Q Do you know how it's measured with respect to 01:56:33</p> <p>21 the system described in the '682 patent?</p> <p>22 A I don't know that the system of the '682</p> <p>23 patent describes a particular way. I'd have to go</p> <p>24 back and check the specification. It's not a</p> <p>25 question I tried to answer, so maybe there are 01:56:52</p>	<p style="text-align: right;">Page 148</p> <p>1 in that case, again, wireless channel.</p> <p>2 Q What does the phrase "S&R metric" mean to you</p> <p>3 as a POSITA?</p> <p>4 A I think there's a discussion of S&R metric</p> <p>5 versus profile. I don't think an S&R metric has a 02:11:33</p> <p>6 specific meaning to a person of skill in the art,</p> <p>7 but with respect to how that term is used in the</p> <p>8 '682 claims, I believe there's a discussion about</p> <p>9 the similarity between metric and profile, and I</p> <p>10 think that there's a citation that points to 02:12:01</p> <p>11 essentially where they are used interchangeably.</p> <p>12 Q If we look at Claim 1 on the '682 patent.</p> <p>13 A I'm there.</p> <p>14 Q So it says (as read):</p> <p>15 "Generating -- generating by the 02:12:31</p> <p>16 CMTS for each one of said plurality of</p> <p>17 service groups a composite S&R-related</p> <p>18 metric based at least in part on a</p> <p>19 worst case S&R profile of said S&R</p> <p>20 related metrics corresponding to said 02:12:49</p> <p>21 one of said plurality of service</p> <p>22 groups."</p> <p>23 Do you see that?</p> <p>24 A I do.</p> <p>25 Q I believe this is the element that is in your 02:12:59</p>
<p style="text-align: right;">Page 147</p> <p>1 limits within the invention or in the claims, but</p> <p>2 I'd have to look and see.</p> <p>3 Q Why don't we take a short break?</p> <p>4 MR. BENYACAR: Okay.</p> <p>5 THE VIDEOGRAPHER: Going off record at 01:57:16</p> <p>6 1:57 p.m.</p> <p>7 (Recess.)</p> <p>8 THE VIDEOGRAPHER: We're back on record.</p> <p>9 2:09 p.m.</p> <p>10 BY MS. ALLOR: 02:09:57</p> <p>11 Q Dr. Almeroth, before we broke (sic), we</p> <p>12 were talking about measuring S&R.</p> <p>13 Do you have an example of a system that's</p> <p>14 used to measure S&R?</p> <p>15 A I remember a paper that we worked on. It was 02:10:11</p> <p>16 more in the wireless context than cable TV. At</p> <p>17 least in that context, when we were sending signals</p> <p>18 over the air, we would compare probe requests and</p> <p>19 particular patterns of bits that were sent to what</p> <p>20 was received, and we'd have to do it kind of at the 02:10:47</p> <p>21 physical layer for the signal itself to be able to</p> <p>22 try and determine the difference between what was</p> <p>23 transmitted and what was actually received in our</p> <p>24 case to try and develop the noise profile so that we</p> <p>25 could make determinations about the status of the -- 02:11:06</p>	<p style="text-align: right;">Page 149</p> <p>1 opinion that you say this element is the reason</p> <p>2 that, you know, the claim is indefinite. I think he</p> <p>3 points you to a few other things as well.</p> <p>4 But focusing on this element, I think one of</p> <p>5 your positions is that the composite S&R-related 02:13:14</p> <p>6 metric is the same as the worst case S&R profile; is</p> <p>7 that accurate?</p> <p>8 A I mean, that's close. When trying to</p> <p>9 understand what the worst case S&R profile is, you</p> <p>10 have to look at -- that's the part that says, well, 02:13:36</p> <p>11 that's actually a composite worst case S&R profile</p> <p>12 for the reasons that I think we talked about in</p> <p>13 Paragraph 94.</p> <p>14 Then with respect to a composite S&R related</p> <p>15 metric, the first kind of analysis is looking at 02:13:54</p> <p>16 what a metric is versus a profile. That's the first</p> <p>17 part of 95.</p> <p>18 And then if it's a composite S&R-related</p> <p>19 profile, the composite that the patent described is</p> <p>20 a composite of the worst case. 02:14:10</p> <p>21 And I know Dr. Kramer said, oh, well, it</p> <p>22 could be the best case or some other case. But</p> <p>23 that's -- that doesn't make any sense in the context</p> <p>24 of the invention or what's described specifically as</p> <p>25 the invention. You are looking for the worst case. 02:14:26</p>

<p style="text-align: right;">Page 150</p> <p>1 So when you understand that the composite 2 S&R-related metric based at least in part on worst 3 case S&R profile, would mean to a person of skill in 4 the art that you are talking about a composite worst 5 case S&R-related profile be based on the same thing, 02:14:43 6 that's part of -- that's the first argument as it 7 relates to this limitation and indefiniteness. 8 The second is also in that limitation as it 9 relates to an antecedent basis point, and that's in 10 Paragraph 97. 02:15:02 11 Q So I think you're inserting the word 12 "composite" -- or sorry -- yeah, "composite into the 13 claim term worst case S&R profiles. And I'm not 14 sure where you're getting that from. So maybe you 15 could explain to me why your calling the composite 02:15:18 16 the worst case composite S&R profile? 17 A It's -- I'm saying the worst case S&R profile 18 doesn't have a meaning in the art. This is all in 19 Paragraph 94. 20 And I think it's where you started, but I'll 02:15:36 21 try and re-describe it again. I'll summarize, and 22 you can look to Paragraph 94 for details. 23 It doesn't have a plain and ordinary meaning 24 to the extent that you do -- that you do look at it. 25 Then there's no context for it, that it would just 02:15:51</p>	<p style="text-align: right;">Page 152</p> <p>1 is only based in part on a worst case S&R profile. 2 So there -- it could be based on something else as 3 well. 4 Would you agree with that? 5 A I see the language of the claim. When you 02:17:27 6 look at what it actually means, it's not saying what 7 else it's based on. But the idea that something is 8 based at least in part on itself and then being 9 open-ended creates the no reasonable certainty that, 10 I think, creates the first indefiniteness problem. 02:17:57 11 In addition to not being able to describe how 12 something is based on itself would make any sense in 13 the context of the claim. 14 Q Well, I don't agree with your statement that 15 it's based on itself because if you turn to Column 4 02:18:11 16 and you look at, you know, from Lines 40 down, it's 17 discussing S&R profiles, and it's also discussing a 18 composite S&R profile as a different component. 19 There's a different item that it determines. 20 And so I would disagree, and I would ask you 02:18:40 21 to point me to where you -- in the specification 22 where you find support that the worst case S&R 23 profile has to be the composite S&R profile? 24 A So, I mean, look at the claim language 25 itself. You're ignoring the prepositional phrase 02:19:00</p>
<p style="text-align: right;">Page 151</p> <p>1 be zero. 2 So you have to look at -- you're really 3 trying to figure out as a worst case among a set of 4 values. Otherwise, if you have no values, it would 5 all be zero; right? 02:16:05 6 And I gave you an example of no set of values 7 at zero, and then the other case you look at numbers 8 like 3, 4, 5 and 10. It would be the worst case, so 9 it will be 3. 10 So when a person of skill in the art, reading 02:16:18 11 that portion of the limitations sees worst case S&R 12 profile, the specification supports that it's 13 actually talking about a composite worst case S&R 14 profile. 15 So that's why I believe that's what a person 02:16:33 16 of skill in the art would understand it to mean. 17 Moreover, the language itself says a worst case S&R 18 profile of said S&R-related metrics corresponding to 19 set 1 of said one service groups. So setting aside 20 the antecedent basis, it says that it's a composite 02:16:52 21 of the S&R-related metrics for at least one of the 22 groups. And so it's saying it's a composite value 23 based on the worst case that following S&R profile. 24 Q And you would agree with me that the claim 25 language says that the composite S&R-related metric 02:17:14</p>	<p style="text-align: right;">Page 153</p> <p>1 that comes after it. It's worst case S&R profile of 2 said S&R-related metrics. 3 And said S&R-related metrics are metrics that 4 are collected from the cable modem. So it's a worst 5 case profile of that set. 02:19:18 6 In the context of the specification, that's 7 the composite worst case S&R profile. Moreover, if 8 you are saying that you are going to just use a 9 worst case S&R profile and you want to ignore the 10 rest of the claim language, a worst case S&R profile 02:19:39 11 is always zero. 12 So you -- in order to consider something 13 that's meaningful in the context of the claim for 14 what a worst case S&R profile of said S&R-related 15 metrics would be, it's a composite. You're looking 02:19:56 16 at the worst case, and it's a profile so the worst 17 case among the set of cable modems at each 18 sub-frequency. 19 That is exactly described in the 20 specification as a composite worst case S&R profile. 02:20:12 21 So to suggest -- I mean, if there's -- if you are 22 saying it's something else -- there's just nothing 23 else that's described in this specification. You 24 have pointed to Column 4, I think it was, around 25 Line 40. And that's going through and saying, okay, 02:20:34</p>

<p style="text-align: right;">Page 154</p> <p>1 first of all, you generate a S&R-related metric for 2 each cable modem, and now that you have that, you 3 assign the cable modems to a corresponding -- to a 4 service group. So now that they are in the service 5 group, you have the set of modems and you want to 02:21:01 6 build a worst case -- composite worst case S&R 7 profile, which is kind of the first profile because 8 it's all sub-frequencies. 9 It's a composite because your taking the 10 worst case for each cable modem in the service group 02:21:17 11 at each sub-frequency. It's a worst case as opposed 12 to any other case because you're trying to establish 13 the minimum required transmission parameters so that 14 you can reach all of the cable modems without 15 significant error in that group. 02:21:40 16 So, I mean, this goes to kind of the second 17 part why it has to be a worst case as opposed to a 18 best case or some alternative. It's really the only 19 interpretation that makes any sense in the context 20 of the invention as it's described in the 02:21:54 21 specification. 22 Q So, again, I would point you back to the 23 claim language and say that the claim language 24 itself says that the composite S&R-related metric is 25 based at least in part, not -- not wholly on worst 02:22:13</p>	<p style="text-align: right;">Page 156</p> <p>1 And so what it's really talking about is a 2 composite S&R-related profile. Now, the next 3 question is, well, a composite of what S&R-related 4 profiles, and you turn back to the specification to 5 understand what it is saying and the composite 02:24:01 6 S&R-related profiles that are described are where 7 you are talking a composite of the worst case. 8 And I know Dr. Kramer said, oh, well, it 9 doesn't say worst case so it could be best case 10 or -- or any other kind of case. 02:24:16 11 Well, let's take as an example the best case. 12 So you're going to transmit to everyone in a service 13 group so that only the person with the best network 14 connection can hear you. I mean, that makes zero 15 sense. The system doesn't work in that sense. 02:24:31 16 So supported by the specification, the only 17 thing that makes sense for a composite S&R-related 18 metric is a composite worst case S&R-related 19 profile. So now that term is understood by a person 20 of skill in the art is the same -- the same thing as 02:24:49 21 what comes after based at least in part on. 22 So you have A is at least based in part on A, 23 and that creates no certainty with respect -- or 24 it's not unreasonably certain with respect to how a 25 person of skill in the art would understand how you 02:25:12</p>
<p style="text-align: right;">Page 155</p> <p>1 case S&R profile. 2 So, again, I guess I'm not seeing how you're 3 making these two equivalent when the specification 4 discusses them separately, and the claim itself says 5 it's only based in part on that worst case S&R? 02:22:31 6 A No, the reason why they're the same thing is 7 not based on the based on language. It's by looking 8 at what the term worst case S&R profile and said S&R 9 related metrics means to a person of skill in the 10 art in the context of the specification. 02:22:51 11 That's Step 1, and that's in Paragraph 94. 12 That worst case S&R profile, when you work through 13 the analysis included in 94, and you look through 14 the specification, that is actually describing a 15 composite worst case S&R profile. 02:23:09 16 And the reasons for that are in Paragraph 94. 17 Okay. 18 So now turning to the term "composite S&R 19 related metric" there's two steps there. One is 20 what's a metric as opposed to a profile? 02:23:23 21 Does the claim make any sense if you're 22 looking at a metric versus a profile? And that's 23 the first part of Paragraph 95 where it's really 24 using -- that the metric is a profile, and there's a 25 cite to that in the specification. 02:23:39</p>	<p style="text-align: right;">Page 157</p> <p>1 can have the same things being based on each other. 2 Q So when you were discussing S&R-related 3 metrics is the same as an S&R-related profile, I 4 wanted to point you to the description of Figure 2 5 at the bottom of Column 3, and here it talks about 02:25:39 6 there being one or more measured performance 7 metrics. 8 So I'm not sure I agree or understand how 9 you're having a one-to-one equivalency of an S&R 10 profile to an S&R-related metric. So I guess if you 02:25:56 11 could point me to somewhere in the specification 12 where it makes that equivalency argument, and 13 explain where your getting this one-to-one 14 relationship... 15 MR. BENYACAR: Well, I'm going to object. 02:26:13 16 This question has been answered numerous times now. 17 But go ahead. 18 THE DEPONENT: Column 4, Line 47 through 49. 19 And that's -- 20 BY MS. ALLOR: 02:26:23 21 Q Oh, I'm sorry. Sorry. 22 Column 3, the Figure 2A. That's where I was 23 reading from. I apologize. 24 A Okay. 25 So the portion -- 02:26:31</p>

<p style="text-align: right;">Page 158</p> <p>1 Q Sorry. At the bottom of Column 3, it says 2 (as read): 3 "As shown in Figure 2A, determine 4 one or more measured performance 5 metrics." 02:26:43 6 A I see that. And at a particular frequency, 7 S&R over a range of frequencies and S&R profile. 8 There's also -- I mean, that's -- that exactly says 9 that the metric -- the profile is metrics at each 10 frequency value. Also Column 4, Lines 47 through 02:27:15 11 49, it says (as read): 12 "The CMs assigned to that service 13 group, e.g., composite S&R profile for 14 the CMs of the service group." 15 And it's talking about each CM's respective 02:27:36 16 metrics, e.g., each CM's S&R profile, and in the 17 context of Claim 1, when it's talking about 18 generating by said CMTS for each one of said 19 plurality and service groups, a composite 20 S&R-related metric for the service group. 02:27:58 21 So that -- again, composite S&R-related 22 metric for the service group would be for each CM at 23 each frequency. 24 So it's -- in the claim language, when it's 25 referring to a composite S&R-related metric, I kind 02:28:18</p>	<p style="text-align: right;">Page 160</p> <p>1 groups or a plurality of a plurality, that it's 2 referring to more than one? 3 A Usually plurality means two or more. 4 MS. ALLOR: Okay. I have don't have anymore 5 questions for you. I'll turn it over to David if 02:31:12 6 you would like any redirect. 7 MR. BENYACAR: No, I have no questions for 8 Dr. Almeroth. 9 THE DEPONENT: Okay. Thank you all. 10 THE VIDEOGRAPHER: All right. 02:31:24 11 Going off the record at 2:31 p.m. 12 This concludes today's testimony given by 13 Dr. Kevin Almeroth. 14 (Whereupon the deposition was 15 concluded at 2:31 p.m.) 16 /// 17 /// 18 /// 19 /// 20 /// 21 /// 22 /// 23 /// 24 /// 25 /// </p>
<p style="text-align: right;">Page 159</p> <p>1 of walked through the steps for why it's referring 2 to a composite worst case S&R-related profile, and 3 the reasons, those exact steps are described in 4 Paragraph 95. 5 Q Would you agree that the claim covered more 02:28:46 6 than one S&R-related metric? 7 A I'm not sure what that question is asking. 8 Q So you said to me that the passages are in 9 Column 3 that I pointed you to supporting your 10 opinion that S&R profile is a number of S&R metrics, 02:29:13 11 and that's why they are the same. 12 A No. It's not that -- it's an S&R value at 13 each sub-frequency consistent with what's shown in 14 Figure 2 -- actually it's in all of them 2B, 2C. It 15 shows as the x-axis, that there's a sub-band 02:29:38 16 frequency across the whole spectrum. 17 So those are each of the frequencies at which 18 there is an S&R metric value that's being 19 considered, and you are trying to find the worst 20 case at each one of those sub-frequencies so you 02:29:57 21 know what the performance parameters -- sorry, the 22 one or more physical layer communication parameters 23 should be at each of those sub-frequencies. 24 Q Would you agree with me that when a claim 25 such as Claim 1 refers to a plurality of service 02:30:35</p>	<p style="text-align: right;">Page 161</p> <p>1 2 3 4 5 6 7 8 I, KEVIN ALMEROTH, PH.D., do hereby declare 9 under penalty of perjury that I have read the 10 foregoing transcript; that I have made any 11 corrections as appear noted, in ink, initialed by 12 me, or attached hereto; that my testimony as 13 contained herein, as corrected, is true and correct. 14 EXECUTED this ____ day of _____, 15 _____, at _____, _____ 16 (City) (State) 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 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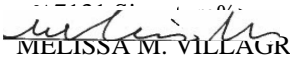
1 I, the undersigned, a Certified Shorthand
2 Reporter of the State of California, Registered
3 Professional Reporter, Certified Live Note Reporter,
4 do hereby certify:

5 That the foregoing proceedings were taken
6 before me at the time and place herein set forth;
7 that any witnesses in the foregoing proceedings,
8 prior to testifying, were duly sworn; that a record
9 of the proceedings was made by me using machine
10 shorthand which was thereafter transcribed under my
11 direction; that the foregoing transcript is a true
12 record of the testimony given.

13 Further, that if the foregoing pertains to
14 the original transcript of a deposition in a Federal
15 Case, before completion of the proceedings, review
16 of the transcript [] was [] was not requested.
17 I further certify I am neither financially
18 interested in the action nor a relative or employee
19 of any attorney or party to this action.

20 IN WITNESS WHEREOF, I have this date
21 subscribed my name.

22
23 Dated: May 3, 2023
24

25 
MELISSA M. VILLAGRAN
CSR No. 12543 RPR

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

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COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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